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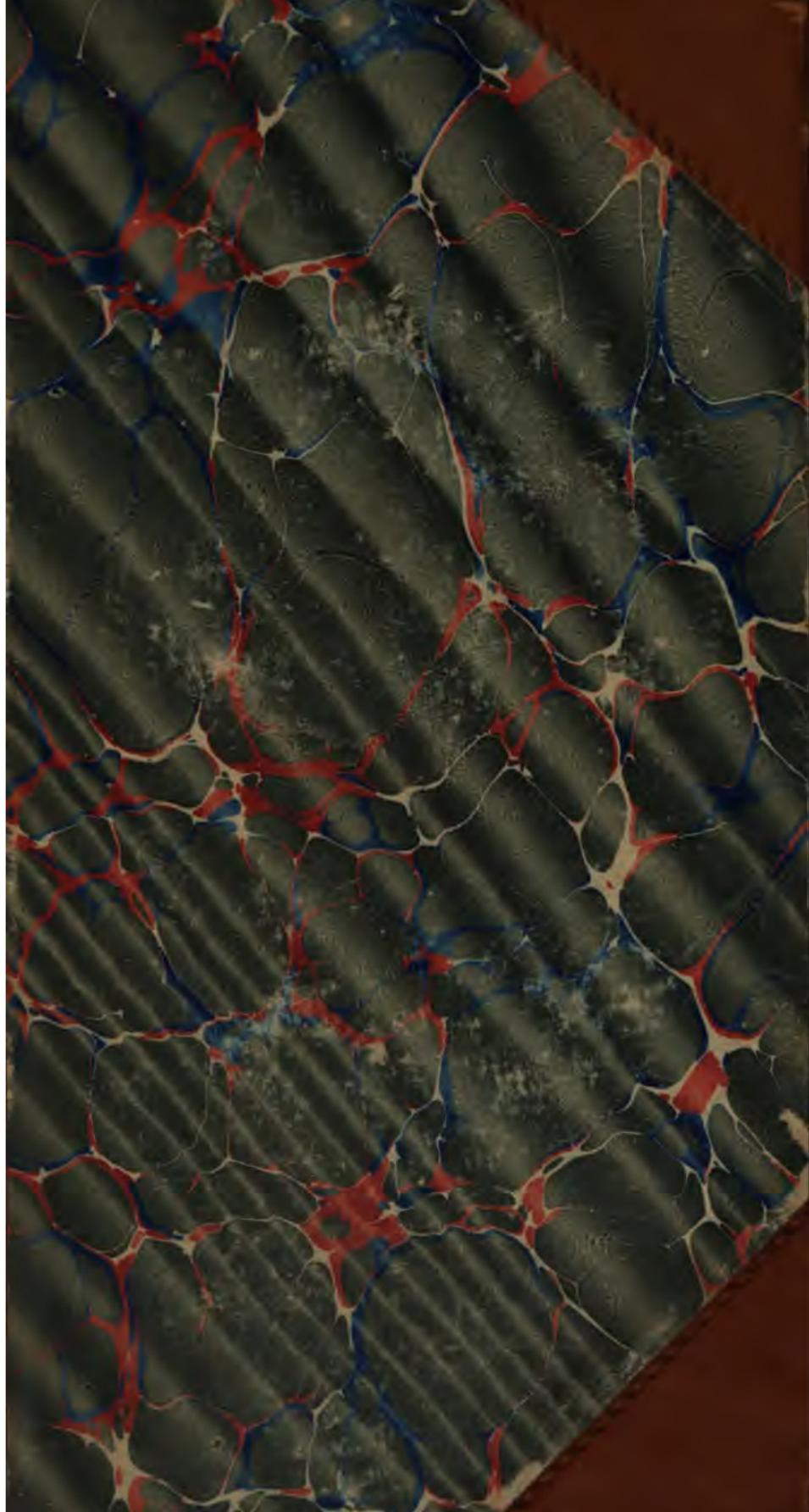
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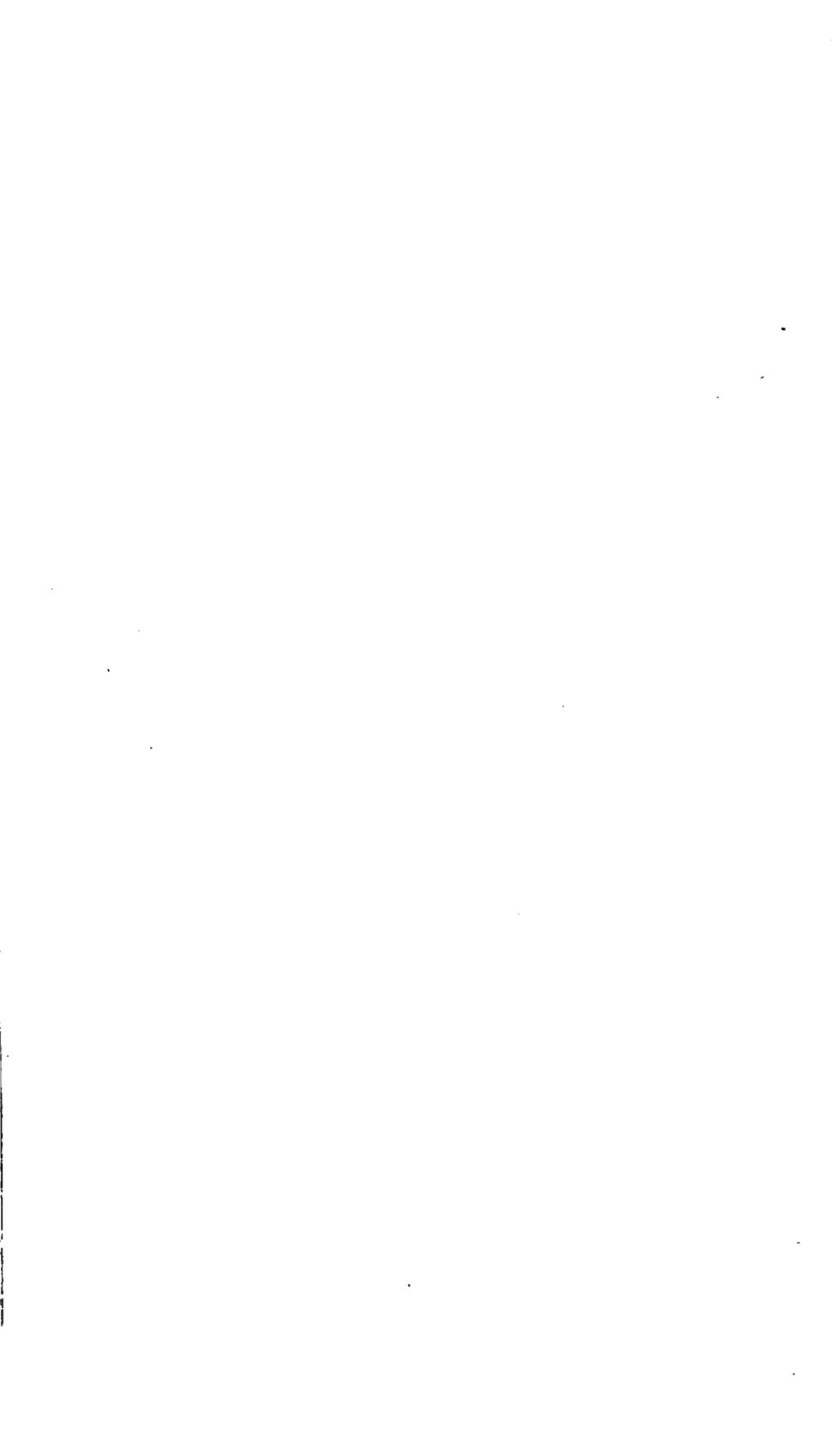
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A *J. H. 1832.*

PRACTICAL AND PATHOLOGICAL
INQUIRY
INTO THE
SOURCES AND EFFECTS OF DERANGEMENTS
OF THE
DIGESTIVE ORGANS,
EMBRACING
DEJECTION
AND SOME
OTHER AFFECTIONS OF THE MIND.

BY
WILLIAM COOKE,
MEMBER OF THE ROYAL COLLEGE OF SURGEONS, SECRETARY TO THE HUNTERIAN
SOCIETY, EDITOR OF AN ABRIDGMENT OF MORGAGNI, &c. &c.

"The stomach sympathizes with every part of an animal, and every
part sympathizes with the stomach." *J. HUNTER.*

SECOND EDITION.

*

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RENSHAW AND KUSH, 356, STRAND.

1831.

691.



P R E F A C E

TO THE SECOND EDITION.

HAD compilation formed any part of my design, I might, on issuing a second edition, have embodied in it much valuable information which has been given to the profession, and to the public, since the first edition appeared.

The late Mr. Abernethy (of whom, as my preceptor, I cannot speak but with great respect) conferred incalculable benefit on mankind, by directing attention to the influence of disorder in the digestive organs on remote parts. The subject was somewhat novel, and was identified with every-day occurrences, so that when taken up by a man of such deserved celebrity—interwoven with every lecture, and made the basis of every consultation—we cannot wonder that he controlled both professional and popular opinion. Unquestionably his practice was highly successful, but, from the kind of celebrity he had obtained, it is probable that a large proportion of his cases was such as his *unit* of means exactly met.

In no department of the profession is disease encountered under such a diversity of circumstances as in that of the General Practitioner, and my design, in the following Treatise, was to present a work of direct practical utility. That important pathological truth of Mr. Hunter, *mutual sympathy*, though not forgotten, had been somewhat overlooked in the all-absorbing doctrine (acted upon if not maintained) of one centre of sympathy, and one parent of suffering however multiform the progeny. I wished “to exhibit disease as it really occurs—modified by complication and by constitutional peculiarity”—to show the varied sources of dyspeptic symptoms as well as the agency of the affected organs on distant parts, and on the mind. It is satisfactory to me that the views I have taken are much more extensively held than they were when my first edition appeared. I might have greatly extended the number of cases, but those which have been adduced establish the facts it was intended to bring into notice.

39, TRINITY SQUARE,
August 1, 1831.

TESTIMONIALS RESPECTING THE FORMER EDITION.

“Mr. Cooke’s work is entirely practical, and will not be consulted without advantage.”

London Medical and Physical Journal. 1828.

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Gentleman’s Magazine. 1830.

“Mr. Cooke has treated the subject in a masterly and scientific manner; and we know of no work professing to treat of disorders of the digestive functions, and of other functions more immediately allied with them in the circle of relation, which we could more conscientiously recommend to the notice of our readers, than the present.”

London Medical Repository and Review. 1828.

“In conclusion, we repeat our conviction that Mr. Cooke’s work will prove of considerable importance to all those who have felt embarrassed by a complication of symptoms, or have had to combat any of those anomalous diseases which frequently originate in disordered digestion:—they will find in this work cases that include almost every possible variety of visceral disease, accompanied by judicious remarks, rendering them of great practical utility.”

Medical Gazette. 1828.

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Monthly Magazine, September 1822.

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“His notes are able and meritorious, and many of his cases are interesting.” *Journal of Foreign Medicine, October 1822.*

“The notes are extremely judicious and sensible.”

Medico-Chirurgical Review, December 1822.

“The manner in which this work is executed, promises to accomplish every thing which the translator could wish. We are, indeed, disposed to think the work of Mr. Cooke the most valuable accession which has been made to the library, not only of the student, but the practitioner, since the publication of Dr. Baillie’s Morbid Anatomy. Mr. Cooke has done every thing that abridgment and condensation, without affecting perspicuity, and good arrangement, without totally changing the character of his author, could accomplish; and we cannot doubt that his translation will eminently contribute to promote the study of pathology, and a more intimate knowledge of the writings of Morgagni in this country.

“The manner in which the work is translated merits great applause. The language is good and correct without being affected; the style is perspicuous without diffuseness; and, what is of infinite importance in a work purely of science, all unnecessary ornament is carefully shunned. The peculiar manner of the original is well preserved.

“ In conclusion, this work, independent of its general utility, will, we conceive, be particularly suited to two orders of medical readers. It must, in the first place, be one of the most valuable works which the student of pathology can possess. Its form and compass are such, that he may easily and without misapplication of time, not only read it, but almost commit its substance to memory, after becoming moderately well acquainted with healthy anatomy. It will be an inestimable companion to the clinical student, whether at the bed-side of the suffering individual, or witnessing in the dissecting room the appearances after death. The second order of readers to whom we think this book particularly calculated, embraces all those of our professional brethren whom local situation, or the incessant drudgery of business, must in a great measure preclude not merely from reading, but even consulting such a book as Morgagni. To such, while it is difficult or irksome to evolve the leaves of a mighty folio or quarto, it will be a matter of comparative facility to look over the pages of this well printed octavo, the execution of which is in every respect calculated to invite perusal. Lastly, to all medical readers of every rank and kind, this work will be found not unserviceable, and we trust that its perusal will only confirm the opinion which we have now delivered.”

Edinburgh Medical Journal, January 1823.

“ He thinks it likewise his duty to state the gratification he has recently received from an attentive perusal of the abridgment of Morgagni by Mr. Cooke of Trinity Square; a work judicious in selection—able in execution—and abounding in explanatory and practical notes:—a work which ought to be read by every student, and possessed by every practitioner in medicine.”

Monthly Review, August, 1824.

See also Preface to Dr. Uwin's Compendium of Medicine.

Also, price 1s. 6d.

OBSERVATIONS

Addressed to General Practitioners, on the best means of maintaining their Privileges and Respectability.

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PREFACE.

IT requires some resolution to issue another Treatise on Diseases of the Digestive Organs. In this department of medical literature, talents of the highest order have been employed, and the eminence of the writers, combined with the popularity of the subject, have secured for these publications high approval, and wide circulation. Still, notwithstanding the range that has been taken, the field is not wholly occupied, the difficulties have not been entirely overcome, nor all the intricacies unravelled:—there is yet ample room for other labourers, who may, at least, assist in the process without following the beaten tract, or wasting time in idle discussions.

Were I disposed to engage in controversy, the name of Abernethy, or Philip, or Paris, or Johnson, or Uwins, would intimidate me; and their appearance in collective array must inevitably appal a man of far higher attainments than myself in the subtleties of literary disputation. In one

point of view, perhaps, I may be regarded as a controversialist. Incalculable good has resulted from directing attention to the influence of derangements of the digestive organs in producing various chronic affections, but this doctrine has been so extensively promulgated, and is now so prevalent, that the opposite truth has been somewhat overlooked. That the functions of the abdominal viscera are disturbed by injuries of the head, and by emotion of mind, are facts too common and too prominent to escape observation: but the effects of idiopathic disease in the head, or in any other viscus; or of continued pain in any part of the body; or of general debility, on the nervous system and functions of the organs in question, though not less certain, are liable to be disregarded when the mind is strongly imbued with the notion of their priority in suffering.

It has been my custom from the time of settling in practice to record interesting facts and passing observations; and it seemed to me that on points relating to the organs of digestion a useful selection might be made. This objection, however, presented itself:—the narration of cases is somewhat opposed to the ascendant fashion, and likewise to the taste of numerous readers, with whom precise arrangement is every thing. Generalization is the work of superior minds,

and the public, as well as the profession, are greatly indebted to those individuals, who, after patient research, and matured experience, and correct analysis of individual facts, have so arranged the elements of disease that an acquaintance with them is easily obtained. But there is a wide difference between the man who has arrived at these results after a long process of inquiry and of intellectual labour, and him who possesses himself of the same results by the mere amusement of perusal. In the one, higher powers of perception, and greater accuracy of discrimination and of reasoning, are progressively attained; in the other there is little or no ratiocination:—the memory may be fed, and its waste supplied; but, though the mind is replenished, the faculties which ennable an intelligent being neither acquire vigour nor capaciousness. We are greatly assisted by condensed and well-arranged information, but he who aspires to an intimate acquaintance with any branch of science, must not satisfy himself with general conclusions, any more than he would be content with viewing the constituent principles apart. Whilst he is not negligent of these sources of instruction, he must also direct close attention to the science in its ordinary and varied combinations.

These remarks are strictly applicable to the study of medicine, and the object of the following

Treatise is to supply information in the latter form:—to exhibit disease as it really occurs, modified by complication, and by constitutional peculiarity.

Some of the cases and observations do not definitely apply to dyspepsia, but where the application is not direct, and where derangements and diseases of a higher order are described, the design has been to illustrate the agency of parts on each other. Many of the slighter disorders are so obscure as not to admit of demonstration, and we are compelled to infer their nature by considering diseases which leave a more permanent and defined impression.

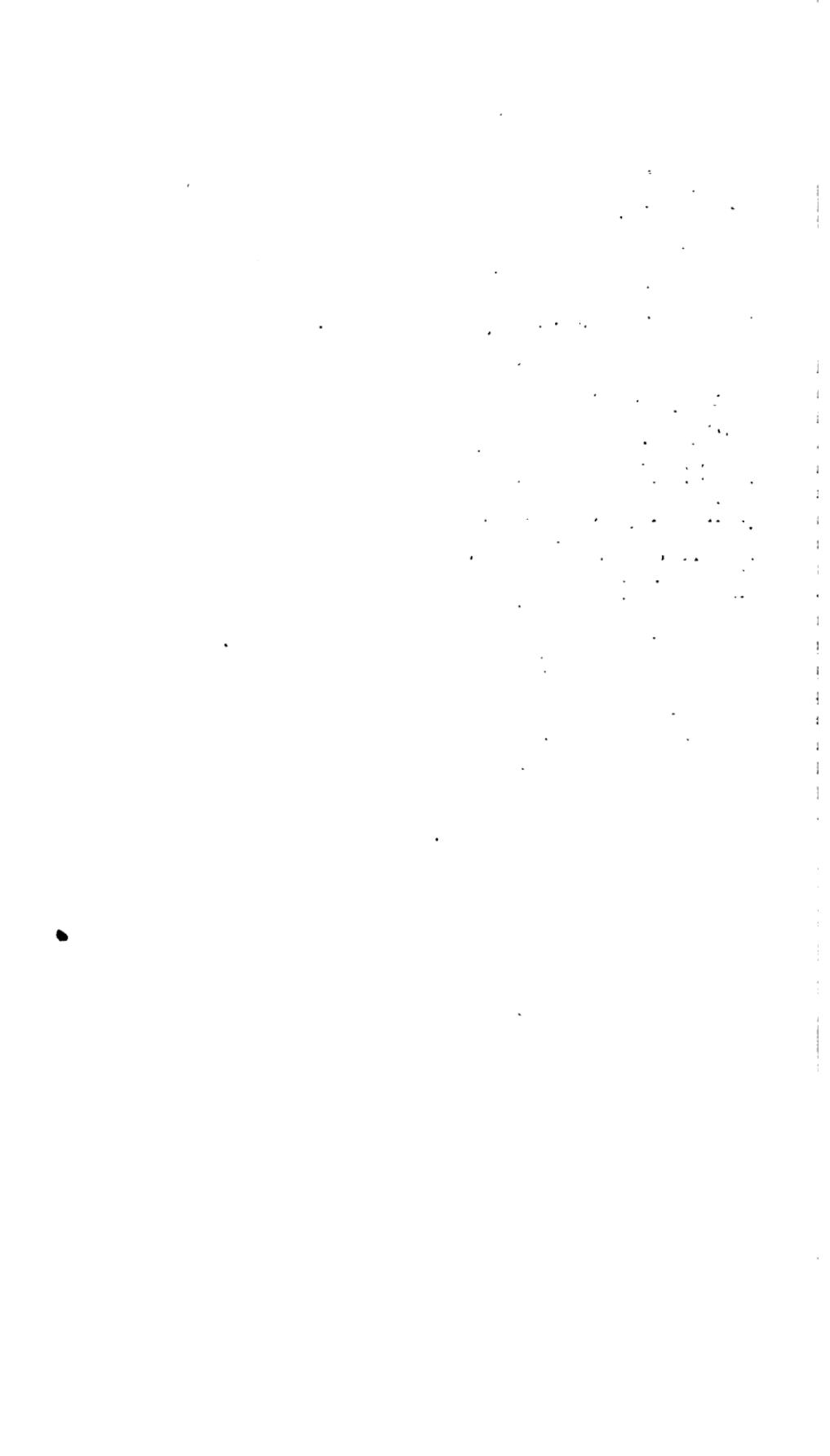
On some occasions there may be an appearance of egotism or presumption in speaking of successful management after the failure of other practitioners. The danger of incurring these imputations should not deter us from describing things as they transpired. No professional man is mentioned to his disadvantage, and failures have only been reported for the purpose of heightening the importance of careful inquiry;—and my own have not been concealed.

Should I have contributed, in even a small degree, to throw light upon this important subject,

or should I excite to more careful and diligent investigation, or caution against a disposition to systematize beyond what the nature of the circumstances admits of, my reward will be ample.

Suspicions that I have borrowed my title and outline from a recent publication on the same topic might arise. I believe, however, that on both these points my design was formed and announced before that work was contemplated. As there is no similarity in the filling up of the outline, there was no reason to depart from my original purpose.

39, TRINITY SQUARE,
February 12th, 1828.



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A PRACTICAL AND PATHOLOGICAL INQUIRY, &c.

PART I.

ON THE VARIOUS SOURCES OF DYSPEPTIC SYMPTOMS.

THE most common affections of the Digestive Organs are those usually described under the general appellation *Dyspepsia*; and though some excellent works have been written to show that this condition arises from various causes, yet frequently the term is associated with too limited views, both as to the nature and treatment of the disease.

General Observations.

The symptoms of this morbid condition are extremely multifarious, and not unfrequently exhibit the most remarkable contrarieties. Hence nosologists have derived many of the species into which they have divided it. Sometimes the appetite is impaired, and at others almost insatiable. At times it is fastidious to the utmost degr  e, whilst at others there is no marked aversion or predilection, but unpleasant effects result from its indulgence. These effects may be a sense of weight and fulness in the pr  cordia, accompanied with flatulence, and not seldom with acid or nauseous eructation, rumination, cardialgia, or gastralgia. Whilst the stomach is oppressed with food the head not unfrequently aches and throbs, and there is an almost insurmountable listlessness both as to mental and corporal exertions.

The want of due relation between the digestive organs and the substances exposed to their action, is not always a disease; for if the healthiest stomach be overloaded, or if the food be of an improper quality, dyspeptic symptoms necessarily arise. It will often be found in the management of dyspeptic cases, that a mere reduction in the quantity of food, or a change in its quality, will remove every unpleasant symptom.

The causes of impaired digestive power are almost as various as the signs which denote it, or as the anomalous consequences which ensue; and as the process of assimilation is extremely complicated, the impediments to its completion may arise at any stage. They might be found in imperfect mastication, in the conversion into chyme in the stomach, or into chyle in the intestines, or in any of the other organs which effect the alteration the aliment undergoes.

It cannot be questioned that the liver has an essential part to perform in the due preparation of the food for the purposes of nourishment, but it is not less certain that it has been too common with some individuals, to ascribe to hepatic origin all the inconveniences attendant upon indigestion, or resulting from it.

Owing to defective mastication, the food, when received into the stomach, may not be in a proper condition to undergo, within due time, the change to be effected by the gastric juice; and by being delayed in this viscus, it becomes itself a source of irritation, fetid gases are extricated, and pain induced. These effects are not attributable to the mere agency of an indigestible substance, for the stomach possesses great power of resistance. This has been exemplified on many occasions. An idiot at Ostend, was addicted to swallowing iron. He died at the age of thirty-three, when his stomach was found to contain two or three pounds of the metal in various forms, as nails, screws, knives, &c. and yet was uninjured.* But, notwithstanding

• Phil. Trans. abridged. Vol. V.

See also an extraordinary case in the Trans. of the Medico-Chirurgical Society. Vol. XII.

this, alimentary substances which have long remained in the stomach, and been but partially digested, not only produce the annoyances alluded to, but may at length cause the stomach to eject its contents by vomiting. Particles of undigested aliment escaping from the stomach into the duodenum often produce a bilious attack. The mucous coat is irritated ; the irritation is propagated along the biliary ducts, redundant secretion is excited, and diarrhoea, sometimes connected with vomiting, results. It is probable, also, that the undigested particles assist in the production of this purging by the continued irritation of the mucous coat of the jejunum and ileum. Food may not only be the source of dyspepsia from defective mastication, but also from its indigestible quality, from its redundancy, from its being too frequently taken, and from overdilution of the gastric juice by an excess of the fluids drank. Some general principles may be adopted as to the digestibility of aliments, but their effects must be specially watched ; for it will often happen that by idiosyncrasy the admitted rules will be totally subverted. When all circumstances regarding the food itself are appropriate the causes of indigestion may, nevertheless, exist in the stomach. Irrespective of sympathetic derangements in the functions of this organ, like every other part of the body it may be the seat of idiopathic disease. The symptoms comprised under the term dyspepsia, may not only indicate the milder forms of morbid action ; but the incipient stage, and in some cases even the advanced progress, of organic lesion, is indicated by signs liable to be mistaken for indigestion.*

In many instances of functional derangement no trace of disease may be discoverable after death ; but in others this is not the case. Unhealthy actions, long continued, effect disorganization more or less important.

* Dr. Buchan, in his *Symptomatology*, page 38, relates a case in which a large portion of the stomach was converted into a hard scirrhouss mass, interspersed with dark-coloured tubercles, presenting altogether the character of cancer ; but the symptoms had been only those of Dyspepsia.

Affections of the mucous membrane.

In persons who had died of other diseases after a long continuance of dyspepsia, I have often found the mucous glands enlarged, but more frequently a state of vascular plethora in the mucous coat of the stomach only, or in that of the stomach and intestines. Where there may exist no gastric disease, there may be a condition of the mucous membrane of the intestines resembling that of the stomach just adverted to, giving rise to many of the symptoms of indigestion, and causing great irregularity in the alvine excretions. Disease in the glandulæ aggregatæ and solitariæ has perhaps greater influence than may generally be supposed, and it is by no means uncommon for a state of congestion, or of chronic inflammation of the mucous membrane, to be productive of symptoms which are regarded and treated as dyspeptic. These affections may usually be distinguished by attentive inquiry into the history of the disease, by a careful investigation of the patient's sufferings, and by the effect of the means employed; and, undoubtedly, it is of the highest importance that they should be distinguished.

This erythematous condition of the mucous membrane of the intestines not only deranges the process of digestion by its direct influence on this extended surface, but it exerts an influence on other organs, the healthiness of whose functions is essential to the formation of chyle. This is particularly exemplified in reference to the liver: Inflammatory action in the duodenum, even when only in a slight degree—so slight as to elude observation unless the mind be very attentively directed to the circumstance—or irritation of this membrane from any other cause, may excite the liver to excessive and unhealthy secretion, from which a state of erythema of the whole canal might ensue. These effects of irritation of the duodenum I have repeatedly seen confirmed by dissection, and believe that I have often detected them in practice.

Under other considerations, indeed, attention to the state of the duodenum in dyspeptic cases is highly momentous,

and generally its affections may be distinguished. When there is much uneasiness and tenderness in the epigastrium, extending rather towards the left side, augmented soon after eating, accompanied with flatulence and frequent bilious dejections, and when a dejection occurs soon after a meal, I think there is reason to suspect disease in this portion of the canal. It must, however, be admitted that disease existing in the liver may not only create uneasiness in the epigastrium, but it may extend even to the left hypochondrium. Other causes, too, might exist, and they not only concur to establish the importance of historical evidence derived from the patient and friends, but also of pursuing the investigation by the taxis.

The symptoms attendant upon inflammation of the mucous membranes are seldom so acute as those which indicate the same condition of the serous membranes; and on this account, when in the subacute form, the danger of mistaking it for dyspepsia is considerable. Few tissues of the body are perhaps more under atmospheric influence than the mucous, and if we consider the functions they have to perform, it will not surprise us that we should find in this extended canal abundant causes of impediment to the assimilative process. The state of phlogosis is often found after death, and I have repeatedly known it issue in ulceration, by steps so insidious, that the patient and his friends were quite unconscious of his peril.

Not unfrequently this erythematous state of the mucous membrane induces troublesome diarrhoea, or diarrhoea alternating with constipation; and in such a case, after bleeding (which should be moderate and local) when much tenderness exists, astringent and slightly aromatic remedies will be found useful.

CASE 1.

In the summer of 1821, I was consulted by a lady about thirty-eight years of age, who complained of obtuse pain over the whole abdomen. The bowels generally were relaxed, and she described the excretions as being "of all

colours, and sometimes gelatinous," or jelly-like. She had much flatulence and a troublesome cough, which, however, was not aggravated by a deep inspiration. The stools were loaded with small portions of concreted mucus. Having become nearly well she went to Hastings, and returned in apparently good health, with the exception of the bowels being very irregular, and the character of the stools unnatural.

About the middle of November I was again consulted. The symptoms were such as have just been described; the pulse being very soft, and about ninety. Leeches, and alteratives with light bitters, and attention to diet, had formerly been useful, and these were again resorted to, but in vain. At the expiration of a fortnight, enjoining total abstinence from animal food and from fermented liquors, I prescribed five grains of the pil. hydrargyri every other night, and the following mixture—

R Infusi Catechu $\frac{3}{4}$ ii.
 Aluminis 3i.
 Syr. 3i.
 Tinct. Hyosciami $\frac{m}{l}$. xL
 Aquæ Menthæ q. s. ut. ft. Mist. $\frac{3}{4}$ vi.
 Cujus sumat partem quartam ter die.

This medicine was decidedly beneficial; and by the 10th of December she appeared to be quite well.

The state of the mucous membrane in these cases, I think, is somewhat like that induced by a drastic purge, such as elaterium. The membrane itself, and the villi, in an extreme case, to a greater or less extent, are loaded with blood, so that when examined after death it exudes on the lightest touch.

In the treatment of those diseases which arise from an inflamed state of the mucous membrane, bleeding by leeches or cupping will be one of the most available remedies; and in cases of mere congestion it may be necessary to effect a local abstraction of blood, though not generally to the same extent as in inflammation. Mercurials, when administered before depletion, I believe, are generally injurious, and

even then will require to be given in the mildest forms and smallest doses.

Persons who appeared to suffer from disease in the mucous glands of the intestines, whose evacuations have been frequent and slimy, accompanied with slight uneasiness, most frequently felt about the termination of the ileum, have seemed to be most benefitted by country air, especially on the coast, sea bathing, bitter infusions, or decoction and tincture of bark, with mineral acids, and an alterative mercurial. When the bowels need opening medicine, the mildest should be employed, as rhubarb and magnesia, or castor oil. I have, however, found a combination of sulphate of magnesia, with myrrh and sulphate of iron, extremely useful in cases which I supposed to be of this nature; but the diagnosis, it must be owned, is difficult. Irritating purgatives should be avoided, as they tend to keep up the excitement in the muciparous texture.

In ordinary cases of irritation in the mucous membrane, produced by heat or variableness of temperature, and occasioning diarrhoea, I find nothing answer better than the pulvis cretae compositus with catechu, sometimes with opium, and at night a few grains of hydrargyrus cum creta, or pilula hydrargyri. A previous aperient is seldom needful, but it is necessary to guard against a subsequent tendency to constipation. In these cases I apprehend that the vessels of the mucous coat are in a state of extreme turgescence—hence the occasional appearance of blood in the evacuations; and the slightly stimulant effect of this medicine on the mucous surface, regarding at the same time the state of the liver, has a most favorable effect. Where there is much tenderness the application of leeches is requisite.

In one case of chronic diarrhoea, where there was reason to suppose the membrane was in the state adverted to, I used the sulphas cupri, as recommended by Dr. Elliotson, with great advantage.

When the mucous membrane of the bowels becomes irritated, either from drastic purgatives or foreign substances, or the spontaneous development of congestion, or subacute

inflammation, it is truly astonishing to witness the quantity of fluids that will be secreted. This fact is exemplified in the *watery diarrhoea*—a disease by which infants, even the previously robust and healthy, will sometimes be pulled down almost as speedily as if haemorrhage had taken place.

On the 13th of August, 1808, I was requested to see an infant seven months old. For some days the bowels had been disordered, yet I never saw a finer babe—plump, and strong, and lively. I was called in about two o'clock p. m. and was informed that at ten the child reclined on the mother's arm, and appeared extremely low, and a large quantity of fluid feces, the colour of yeast, passed from the bowels, wetting through the mother's clothes, as well as the infant's napkin and dress. These discharges were repeated, and at the time of my visit the child appeared in an extremely exhausted state. Its eyes were either fixed, or wandering about with wildness. The flesh was cold, and flabby, and pallid; and the pulse scarcely perceptible. The little patient was placed in a warm bath, which appeared to relieve the general languor, and restored circulation to the surface. An astringent and cretaceous mixture, with a very small quantity of tincture of opium, was directed to be given every two hours. At seven in the evening the child appeared comfortable; it took the breast, and looked more lively than before. At three in the morning it again sucked freely, and retained the milk on its stomach; but the bowels continued to be greatly relaxed. Soon after this time its strength again drooped, and at six in the morning I was sent for; but being engaged in obstetric duties I was unable to attend till nine, before which time the child had expired.

The vessels of the mucous membrane were turgid in patches, and there was a blush of redness on one part of the liver, but it appeared to me that the disease was not of hepatic origin.

This may be viewed as an example of the exhausting effect of excessive secretion from the mucous membrane. When the disease is not so violent, blood is often passed in the stools, accompanied with slimy matter. There is no

reason to suppose, even in such cases, that ulceration has taken place, for the blood is frequently discharged from the turgid villi.

On one occasion, when the disease had continued for a long time, considerable advantage was derived from injecting enemata of decoction of bark and laudanum.

Pyrosis.

Another morbid state of the mucous membrane, or rather of the mucous glands, though perhaps involving the whole secreting surface of the stomach, and connected with defective assimilation, occurs in the disease called Pyrosis, and which naturally associates itself with the subject that has just passed under notice. The early symptoms may bear a resemblance to those of ordinary dyspepsia, but it is of importance to distinguish them. This disease appears to be very common in Scotland and Ireland, and if not very much so in this country, yet every practitioner must have seen repeated instances. The quantity of watery fluid secreted by the glands of the stomach is sometimes really surprising, and from this circumstance an affinity has been traced between pyrosis and diabetes. Morgagni relates a very curious circumstance that happened to himself, and it shows how very slight a cause may excite to the most profuse effusions of fluid from secreting parts. He informs us that he accidentally swallowed a small leaf, which, after making him sick, and occasioning considerable pain at the stomach, produced a discharge of sixteen pints of fluid in twenty-four hours, and it did not cease till the offending substance was dislodged by vomiting.*

Pyrosis has been regarded by some as a symptom of disease in the pancreas, but this opinion has not obtained support. Portal met with salivation as an attendant on induration of the pancreas, and this circumstance occurring to others, might have led to the opinion. In some cases, as in that of the celebrated individual alluded to, we

* Ep. xxxi. Art. 9.

may consider it as merely an effect of some indigestible or irritating substance. The fluid thrown up is usually tasteless, or slightly acid, but sometimes the acidity is so powerful as to set the teeth on edge.* Sympathetic headache often attends this affection; but in one of the following cases, the more prominent symptoms, arising both from the head and stomach, were distinctly periodical. I have generally relied on astringents, such as alum and kino, combined with opium, paying attention to the state of the excretions, and carefully regulating both the quantity and quality of the ingesta.

CASE I.
Pyrosis with gastrodynæ.

Mr. T. S. about thirty years of age, consulted me on the 3rd of December, 1812. He had for some days experienced cardialgia and sickness. He took an emetic, but ejected nothing except water having an acid taste. On the day when he sought my advice he was seized with severe pain in the stomach, accompanied with retching; the retching was violent, and some blood appeared. His throat and stomach felt sore. Although he drank nothing after the first vomiting, when he appeared to have emptied his stomach, yet within an hour or two afterwards he threw up about two quarts of an aqueous fluid slightly acid. He had undergone several paroxysms resembling hysteria, attended with violent twitchings of the arms and other parts of the body. Some infusion of roses, with laudanum and sulphate of magnesia, was first prescribed; but such was the exquisite sensibility of the membrane, that, on taking the first dose, he experienced agonizing pain, from a burning sensation in the œsophagus and stomach, so that it was necessary to alter the medicine. The plain saline mixture, with pills containing opium and kino, agreed with him, and in three days he was quite well.

* Dr. Prout and Mr. Children stated that the acid so frequently generated during imperfect digestion is the muriatic; but M. M. Leuret and Lessaigne allege that they invariably found the gastric juice and the chyme acid, and impute it principally to the lactic acid, and not the hydrochloric.

CASE 2.

On the 29th of May, 1817, I was requested to see the maid servant of Mr. B.— She was twenty-four years of age, and though delicate, yet with a little indulgence she was able to fulfil her duties. Her chief complaints were gastric—what she denominated indigestion. She told me that her appetite now was tolerably good, but that immediately after taking food she was generally seized with a propensity to stool, and sometimes to vomit. These effects were accompanied with a distressing sensation of “sinking at the stomach,” and upwards of half a pint of aqueous fluid was daily ejected from that viscus. The bowels and menstrual periods were regular, but the quantity of the catamenia was too abundant. It was under an increase of the gastric affection I was consulted, and prescribed as follows:

R Alum. rup.
 Pulv. kino $\ddot{\text{a}}$ gr. v.
 — cascarillæ gr. x. M. ft. pulvis;
 ter die sumendus cum cyatho misturæ sequentis.

R Tinct. opii gutt: xx.
 — Lavend. 3j.
 Aquæ \mathfrak{Z} viij. Misce.

She took it regularly for ten days, and was so much better as to request permission to discontinue it.

In the case I am about to relate, the disease having been of long standing, and the ordinary means having failed, the solutio arsenicalis was chiefly relied upon.

CASE 3.

Periodical pyrosis.

On the 24th of March, 1824, I was consulted by a gentleman who resides a short distance from town. He was then about fifty years of age, had been habituated to good living, and was rather corpulent. His chief subject of complaint was, that every Tuesday night, or Wednesday morning,

he had been seized with pain in the head—so violent was it that he was unable to attend to business through the day. These attacks were always accompanied with pyrosis. He usually ejected from the stomach about half a pint of watery fluid, so acid as to affect his teeth. His appetite was keen, and his bowels constipated. He suffered much from flatulence, and his tongue was furred. Having read Mr. Abernethy's work, he was able to report at once that his stools were clay-coloured. He had consulted several medical men, without deriving any advantage from their prescriptions.

The first thing I endeavoured to ascertain was, whether there existed any organic lesion, and from his countenance, and from a careful examination of the abdomen, it was inferred that none had taken place; nor did it appear (although my patient was an important man in parish affairs) that the periodicity depended upon any weekly feast. My hopes of relieving him, however, were still limited, from knowing that although not addicted to inebriation, he had been accustomed to eat and drink rather in excess; and his resources, both as to time and property, enabled him fully to gratify his inclination. Distrusting therefore his fair promises, I candidly expressed my fears—urged upon him the advantages and pleasures of health, and promised that I would use my utmost endeavours to render him comfortable, if he would aid me by steady conformity to the plans laid down.

As an essential preliminary he was required to relinquish his hot meat suppers, and to substitute a scanty meal of something very light. He was directed to lessen the quantity of meat at dinner, and to increase his bodily exercise.

It seemed necessary, at first, to empty the bowels, and for this purpose he took a combination of calomel, scammony, and jalap, every other night, and some alkaline and bitter medicines twice a day.

His report at the expiration of a fortnight was that he had not been so severely affected as formerly, but the attacks had recurred at the stated periods. The powder

usually acted very efficiently within a few hours, and he uniformly felt better after taking it. Having on other occasions known arsenic useful in some chronic cases of pyrosis, this circumstance, as well as the decided periodicity of the affection both of the head and stomach, led me to administer it in the following combination:

R Infusi Rhei
 — Cascarillæ $\frac{3}{4}$ vss.
 Liq. Arsenicalis m . xv.
 Tinct. Cascarillæ 3vj.
 Liq. potassæ 3j. M. Sumat
 cochl. maj. iij. ter die.

By the third of May, the quantity of liquor arsenicalis had been gradually augmented to m xxx. The patient was then much better, and though he generally had an attack of headache once in the week, it was not so severe as to disable him for business, nor was it confined to any particular day. The state of the stomach was much improved, and the ejection of fluid greatly diminished. Through the months of June and July he pursued nearly the same plan, occasionally omitting the opening powder for a week or ten days, and then taking it twice a week. Sometimes he trespassed by eating a hearty meat supper, and was deservedly punished for his indiscretion by a violent attack of headache; but when he observed moderation in eating, and drank but little with his food, and especially when his supper was light and scanty, he enjoyed an immunity from cerebral affection. Though the eructation was sometimes acid, the stomach had ceased to eject fluid for two or three weeks. He now took medicine only occasionally, just to regulate the state of his bowels. The liver was still sluggish, and a repetition of the powder, and a few doses of blue pill were at times found useful. On paying him a friendly visit, after he had discontinued the regular use of medicine, he informed me that three weeks had elapsed without his either suffering acidity or headache.

That there is an efficacy in medicine to remove or mitigate

most diseases, cannot fairly be questioned, but there are many cases in which the best understood treatment and the utmost solicitude of the practitioner are circumvented by the folly and weakness of the patient. Like the African of Guinea, there are persons who prefer nourishment to the purchase of life by a strict regimen,* and how can they reasonably expect permanent benefit from medicine? Undoubtedly it needs resolution for an individual long accustomed to unrestricted indulgences at table, to subject himself to rigid discipline; but when a man is aware that his indulgences not only abridge his comforts, but expose him to pain of body, to mental injury, and to peril of life, it argues little for his good sense if he have not adequate self-command to make the required sacrifice.

Hæmorrhage from the Alimentary Canal.

The state of the mucous membrane, adverted to at page 4, is not unconnected with the subject of hæmorrhage, nor is the subject foreign to that of dyspepsia; for, although the hæmorrhage may be the first symptom that awakens attention, it is usually preceded by a derangement of function. The hæmorrhage itself constitutes a symptom, or is an effect of other diseases interfering with the digestive process. Whenever bleeding takes place from an internal organ it cannot fail to excite considerable solicitude, as the circumstances under which it occurs may be involved in some obscurity. It may arise from the rupture of a blood-vessel, from ulceration; from irritative action, or from a passive oozing from the turgid villi pervading often a considerable tract of the canal, which may retain after death a deep red colour. The concomitant circumstances are extremely

* "The ignorant and savage African, judging of the prostration of his strength occasioned by disease as of that occurring in a state of health from exercise or fatigue, probably considers that it may be remedied by the same means, and has recourse to nourishment; whilst the animal, yielding to the dictates of nature, rigidly abstains from it." There are others besides these savages to whom this observation is not inapplicable.

variable. The rupture of a vessel may take place from increased force in the arterial system, or from disease in the coats of the artery; but when hæmorrhage takes place from the mucous membrane of the bowels, it seems most frequently to arise from irritative action (which must be distinguished from strength of action), or from those congestions which result from organic diseases in the liver. The heart, too, has been found enlarged, and so loose in its texture that it might easily be torn. This circumstance shows the necessity of distinguishing active from passive hæmorrhage—irritative action from power—for which it sometimes is mistaken.

In most of the cases that have fallen under my observation the liver was affected, though the blood did not proceed from that organ; and in the greater number of the cases I have examined, there was no abrasion of structure. The points from which the hæmorrhage had taken place were surrounded with turgid vessels tending like radii from a centre, or, as is mentioned above, the minute vessels were so turgid through a more or less extended surface of the villous coat as to redden deeply the portion of membrane, and if the handle of the scalpel were but lightly drawn over the part, it became smeared with blood. I have witnessed this state of the bowels when it had originated spontaneously, and also as the effect of very irritating purgatives.

The following is an abstract of an affecting case of hæmorrhage from the stomach, occurring under the circumstances I have adverted to; and, having been preceded by functional disorder occasioning signs of dyspepsia, it is entitled to present consideration. It shows to how great an extent bleeding may take place from mere hæmorrhagic action, and how that irritative action may continue when the vital powers have become almost extinct.

The young lady, who was the subject of this case, had attained her fourteenth year when I was called upon to see her on the 26th of April, 1812. She had been a frequent sufferer from bilious and dyspeptic affections, through the whole of her life, and twice I had attended her before, on

account of vomiting blood. For several months her health had been greatly improving, the catamenia had become regular, and her parents congratulated themselves in the appearance of progressive advancement to perfect health, though great attention to diet, and close observation of the state of the bowels were requisite. I was called up at four o'clock in the morning. She had been attacked with vomiting, and had thrown up about two pints of fluid, chiefly blood. The pulse was quick and vibrating. She was faint, and had considerable pain about the epigastrium, particularly before each act of vomiting, which recurred about every quarter of an hour, and in the course of the day, she threw up two quarts of fluid, little else than blood, which showed itself in coagula. In the evening, the vomiting continued with unabated violence, but in the course of the night, the intervals were longer. Early in the morning of the 27th she ejected a large quantity at once, and syncope ensued.

The measures which had been found useful on former occasions, were digitalis and infusion of roses, with sulphate of magnesia, and she found great relief and refreshment from our applying cloths dipped in vinegar and water over the stomach. She was kept cool and quiet, and every thing she took was cold and acidulated. In the course of a few hours, the bowels were greatly affected, and whilst she was seated on the pôt de chambre, she was seized with a convulsive paroxysm, under which she struggled violently. In her extremely exhausted condition, it was directed that she should, on no account, rise from bed, or be placed in the erect position; but even when lying in bed, her faintness was occasionally so distressing, as to require the administration of a little wine, and even brandy, to prevent the total extinction of life.

When visiting her on the morning of the 28th, I had the pleasure to learn that the intervals of vomiting had lengthened, but these flattering appearances were only of short duration.

R. Infusi rosæ 3j.

Tinct. Opii, gutt. iij. Fiat haustus;
tertia quaque hora sumendus.

On the 29th, the bowels were rather confined, and were relieved by adding a little sulphur magnesiae to the infusion of roses. The vomiting of blood occasionally recurred on the 30th, and sometimes a considerable quantity was thrown up. The pulse was quick and vibrating. There was great thirst, and much general soreness, and still she complained of pain in the right hypochondrium extending to the scapula.

Alum and catechu were combined with the former medicine.

In the evening my young friend appeared to be nearly exhausted, and, contrary to the course enjoined, the attendants complied with her request, and placed her on the chamber-utensil, when she was instantly seized with another fit. I saw her soon afterwards, but she could scarcely speak. Several times in the day she had been sick, and had thrown up blood, and the discharges from the bowels were almost equally sanguineous. The pulse was very small and quick.

Drained and exsanguineous as she appeared, yet whilst I sat in the room the retching came on, and she threw up three or four ounces of clear blood.

It was intimated to the family that there was little probability of the patient's recovery, and that every ray of hope would be intercepted without the most strict attention to the measures prescribed, and one of them was, not only the most careful avoidance of exertion, but even of a position, which might be unfavourable to the circulation.

R Zinci Sulphat. gr. v.

 Digitalis pulv. gr. iij.

 Opii gr. iss.

 Cons. Rosæ q. s. ut ft. pil. vj.

quarum sumat unam secunda quaque hora cum
haustu sequente.

R Decoct. Cinchon. 3vj.

 Syr. 3j.

 Acid. Sulph. dil. gutt. x. ft. haustus.

She took a little animal jelly frequently, and, occasionally, some port wine.

The digitalis might appear somewhat incompatible with other parts of the above prescription, but having seen it useful in allaying irritation under similar circumstances, I felt disposed to place it in combination.

On the 1st of May I was informed, that she had been twice sick from the medicine, but had ejected nothing else. She complained that the draught was particularly unpleasant to her, and therefore an ounce of infusum rosæ was substituted.

On the 2nd the bowels were reported to be rather confined, but she had not been sick for twenty-four hours, and appeared comfortable. After taking a dose of rhubarb, she persisted in the draughts and pills as before.

She ate some bread and butter in the evening, passed the night comfortably, with the exception of being hot and restless about four o'clock. At nine, I found her asleep, but the pulse was full and quick, and the skin hot. At three in the afternoon I was peremptorily summoned, and found her faint. The pulse was quick and vibrating. She was thirsty, and complained of throbbing about the epigastrium, and of pain in the sides of the head. From these symptoms we inferred that haemorrhage was taking place internally, and that we should have a recurrence of the vomiting of blood. I directed that the medicine should be continued, and that cloths wetted with vinegar and water, should be applied to the pit of the stomach. This application was very refreshing to her, and she soon appeared somewhat relieved.

At nine in the evening I found her comfortably asleep. The faintness had decreased, and the pulse improved. She passed a good night, and was cheerful and without pain in the morning. The pulse was 100, and soft. The lotion had been continued through the night.

The bowels were still confined, and therefore the rhubarb draught was repeated. The tonic draught was still taken every four hours, and the pill with every alternate draught.

In the morning of the 6th her friends informed me that she had passed a very uncomfortable night, complaining of headache, and being delirious through a considerable part of the night. She felt rather better this morning, though extremely weak. The bowels had been opened but very scantily, and therefore sulphate of magnesia was combined with some lightly tonic medicine, and in the course of the day she had free dejections.

The two following nights she passed rather comfortably, but during the day on the 8th she had several attacks of delirium, lasting from half an hour to two hours. The skin had now become very yellow. She passed the night of the 8th very well, and took a rhubarb draught in the morning, which operated six times, and as she seemed restless in the evening, six drops of *tinctura opii* were given as well as a grain and half of calomel. This was prescribed with a view to relieve the head of increasing congestion, or of the sense of fulness, so common after profuse hæmorrhage.

She was rather comatose in the morning of the 10th. The sickness had recurred twice, without the ejection of blood. There was a hot skin as well as headache, and a quick and feeble pulse.

R Cinchonæ pulv.
Confect. arom. $\ddot{\text{a}}$ gr. x.
Syr. \mathfrak{z} ss.
Mist. Camph. \mathfrak{z} i. ft. haust. quaque

hora sumendus.

R Syr. papav. alb. \mathfrak{z} iss.
Acidi nitrosi diluti \mathfrak{z} i. Misce, et
sumat cochl. parv. i sæpè.

During this day the sickness did not recur, but there remained considerable pain in the head, and in the evening it was accompanied by a frequent sensation of numbness about the arms and legs.

Impon. nuchæ empl. Lyttæ.

She had no delirium through the night. The pulse was very quick and weak, and the skin hot. The head however was relieved and the tongue was cleaner.

Continuentur haustus et syrpus.

She had a good night. In the morning of the 12th she had three dejections. The pulse was 110 and the skin less yellow. She had taken milk freely. Half a grain of calomel and the same of opium were given at bed-time. She slept nearly all night, but appeared indistinct in mind the next morning. Once she had retched but had thrown up only the medicine. It was directed that she should continue the medicine, and take the calomel at night.

Though she passed through the night comfortably, she remained incorrect in mind on the 14th, but in the evening of the 15th she became rational. The abdomen now began to grow distended, and on the 16th the distension was excessive, accompanied with great tenderness; but the bowels were open. The yellowness of the skin had disappeared.

The attendants were directed to rub the abdomen with an anodyne embrocation, but in other respects she pursued the same plan, taking the strengthening medicine in the day, and at night a small dose of calomel. Occasionally, when the evidence of local congestion had been most strongly marked, she took three grains of calomel with apparent benefit. For some days she experienced little variation. Her nights were moderately quiet. The bowels were open, and the dejections dark and consistent. The pulse was 100, the skin cool, and the tongue clean and moist. The degree of distension and tenderness somewhat varied, and cough and dyspnoea had an evident relation to the degree of abdominal tension. The appetite was tolerable, but the sense of fulness was increased after eating. The abdomen was fomented as well as rubbed.

Though she had previously been somewhat better, yet on the 21st the abdomen was extremely tense and tender. The distension appeared tympanitic, and extended so much to the back that the lumbar vertebræ could not be felt. Her

cough was troublesome and the breathing short, and she had pain frequently in the abdomen, back, and different parts of the body. The tongue was still clean, and the pulse was quick and vibrating.

Habeat Pulv. Ipecac. comp. gr. 4. quarta
quaque hora, cum haustu sequente.

R Infus. Angust. cum Rhæo 3i.

Syr. Aur. 3i.

Conf. Arom. gr. xv. ft. Haust.

She passed through the ensuing night comfortably, and in the morning the cough was much relieved. The pain, too, which she had previously felt in the abdomen and in other parts, had greatly subsided. She felt sick at taking the medicine, and vomited the third dose. The bowels were much less tense and tender.

In the evening she complained of severe pain between the shoulders, but after taking the medicine it became easier, and she passed a comfortable night. From this period the abdominal distension gradually subsided, so that by the 24th the parietes were soft. The legs now became œdematos. Though she made water freely, the addition of a little tinct. digitalis was useful.

During the months of June and July she was convalescent, but the skin was occasionally yellow. About the 30th of July she complained of considerable pain in the right hypochondrium extending to the shoulder, and the skin was very yellow. The pulse being quick and rather hard, and fearing the recurrence of hæmorrhage, I drew from the arm about four ounces of blood. It did not induce faintness, and on the next day she was better. She was afterwards attacked with violent pain in the left side, but which subsided when the bowels had been freely opened by calomel, and the yellowness also disappeared.

On the 4th of August, she had violent pain in the right side of the abdomen, which was tense and tender, but by means of warm fomentations, an anodyne embrocation, and

saline medicine, she became comfortable. She then took the *mistura ferri comp.* with advantage, and went to Dover about the middle of August. At first she tried the effect of mere change of air, but this did not avail, therefore I advised the warm bath with a recurrence to the chalybeate medicine, and small doses of calomel at night. Under this plan her general health improved, and by the middle of October she was materially better; and the amendment was confirmed by subsequent attentions at home.

On the 6th of November I detected an enlargement in the region of the spleen, nevertheless she increased in strength, and, with the exception of occasional pains in different parts of the abdomen, she felt comfortable, and grew lusty. The minute recorded in my journal, on the 14th of January, 1813, is that "she continues well."

Before advancing to the sequel of this interesting case, I shall just observe, that we had here, first, impaired digestion; from hepatic derangement. In the progress of time the vascular system of the assimilative organs became disturbed from the same cause. It is likely that, at first, there was congestion from impeded circulation through the *vena portæ*, then irritative action, from the state of the nervous system; supervened. Another circumstance worthy of notice, is the re-action and the appearance of inflammation in different parts after the body had been rendered almost bloodless. The head—the liver—the spleen—the peritoneum—and perhaps the lungs—appeared to be successively affected. These symptoms often arise after very copious depletion or haemorrhage, and if they are treated as inflammation it is more than probable the patient will die.* Then again, the erratic pain so commonly attendant on extreme weakness or broken health, often resembling rheumatism, cannot fail to have been generally noticed; and whilst in the former instance we see indications of irregular distribution of blood, producing congestion, we have here irregularity in the diffusion

* Vide Abridgment of Morgagni, vol. 1st, pp. 73 and 110, and Hall's Essays.

of nervous influence. These asthenic pains, however, are not, I apprehend, so satisfactorily explicable as disturbed circulation.

They only who have attended an interesting patient through a protracted season of extreme peril, can appreciate the felicity enjoyed by the medical man, when he has surmounted every difficulty and been instrumental, under providence, in conducting the sufferer to a point of safety. But here he has often to rejoice with trembling. He may have gained a summit, but it is not all plain surface beyond. This was the case with the young lady in question. Our satisfaction at seeing her so much better than we had reason to expect was but of short duration. Indeed, at the moment of highest congratulation, there was enough in the sallow complexion to indicate that all was not right, and it was consolatory to me, when a relapse occurred, to know that we had not been lulled into false security, and that the family were not taken at unawares.

Until the 2nd of April she continued apparently well. The strength was progressively increasing, and the catamenia for some months had been regular. The alvine excretions both as to quantity and frequency were natural, and she was able to take considerable exercise. On the 1st of April she was more cheerful than usual—retired to rest at the accustomed hour, and slept till one o'clock. She then awoke and felt sick. I was called at two, when she complained of alternations of heat and cold—of faintness—and of uneasiness and throbbing about the stomach. She had retched several times, but had not ejected any thing. Apprehending a return of haemorrhage, I withdrew about six ounces of blood, and prescribed—*Infus. Rosæ ʒi. secunda vel tertia quaque hora*, directing the body to be kept as cool as possible.

On visiting her at half-past eight, I found that she had vomited blood several times. The first she brought up was a small quantity of dark-coloured fluid resembling coffee grounds, the next appeared to be clear blood, and nearly all coagulated. She had ejected about three pints, for after

standing some hours the coagula alone measured two pints. She had passed one confined dejection. The pulse was frequent and feeble. An ounce of rose infusion, with a dram of sulphate of magnesia, to be taken every two hours, in conjunction with the zinc pills formerly prescribed. By three o'clock she had taken three doses of the medicine, and had vomited about a quarter of an hour after two of them, but had brought up no blood. She had enjoyed some comfortable sleep, but complained of throbbing about the stomach and across the upper part of the abdomen. The pulse was quick and a little hard.

At eight she was much in the same condition. Although sick once or twice she had thrown up no blood. She noticed that pressure about the scrobiculus cordis excited nausea.—The draught to be taken every three hours, and the pill every six.

Visiting her at eight o'clock in the morning of the 3rd of April, I was informed that at ten the preceding evening she brought up more blood, and that in the course of the night she had vomited it frequently. Within this period she had thrown up as much as supplied by measurement two pints of coagula, and perhaps we do not exaggerate in adding a third for the serum, when estimating the quantity of blood. The pulse was quick and still a little hard. The bowels had not been opened since the preceding day. The features were sunk. She solicited wine, which was allowed during the continuance of the faintness. Since the return of haemorrhage the pills and draughts had been given every two hours, and this, perhaps, accounted for the constant nausea and some tendency to coma. The pills were therefore omitted. A dose of calomel and rhubarb was recommended, and the continuance of the draughts. She made but little water.

At one o'clock I was informed that she had passed a copious evacuation, nearly all coagulated blood, and when sitting on the pôt de chambre she was seized, as before, with a convulsive paroxysm. She was immediately laid on the bed, and a piece of bread sopped in brandy given to her.

Her pulse at the time of my visit was quick, and she felt extremely faint.

Before eight p. m. she had passed seven stools, in which, at least, one pint of blood must have been contained. There had been no vomiting. She dozed considerably, and seemed comfortable at this hour. The pulse was quick and skin cool.

April 4th. At nine in the morning I was informed that she had passed a tolerable night, and had not vomited, but she felt a little sick and had throbbing about the stomach. The pulse was very quick, the skin cool, and the urinary secretion was deficient. Pressure on the region of the stomach still excited sickness, but occasioned no pain. The conjunctivæ were yellowish. She had had three offensive and bloody dejections.

The evening report was that at one o'clock she became sick and returned the medicine, with about two ounces of blood. She had retched afterwards several times, but vomited no blood. She underwent a short convulsive paroxysm in bed, although she had not been moved. At the time of my visit the pulse was extremely quick and irregular. There was considerable thirst, and the palpitation of the heart was violent. She partook frequently of jelly with a little port wine in it.

Within the night she frequently dozed, and at four o'clock vomited about a quarter of a pound of blood. She had two dejections consisting almost wholly of blood, and apparently about a pint. She took nourishment frequently.

In the morning the pulse was 130. The palpitation was violent and thirst considerable. The temperature of the skin was natural. She had no vomiting during the day, and took moderately of nourishment. The bowels were twice opened, but not in large quantity nor so bloody as before. The palpitation had been less distressing, but at the time of my visit the heart was throbbing violently. The pulse was upwards of 130 but rather less haemorrhagic than before.

The medical treatment continued the same. At ten a messenger informed me that the vomiting of blood had returned.

April 6th, at seven ~~a.~~ m. I paid my young friend a visit,

and learnt that over night she had thrown up three or four ounces of blood, but had not vomited since. After the vomiting she was very cold, and then took some candle and slept. She was restless through the night, and I found her extremely low, with frequent subsultus tendinum. She had taken freely of broth and beef tea, and a little wine.

It was evident that the sufferings of my patient were hastening to a close. She was restless through the day from a blister and from exhaustion. She slept tolerably till three o'clock—afterwards was rather delirious, generally talking incoherently and loudly, but capable of giving a rational answer. At eight o'clock the following morning the pulse was quick and weak. The palpitation was not so violent, and there had been no sickness. She passed the morning with restlessness, and violent convulsive twitchings of the arms were often observed. At three p. m. I called and observed that her countenance was cadaverous, and the tongue and mouth were almost exsanguis. She had not dozed, but had taken nourishment in small quantities. She swallowed with extreme hurry, and soon after this hour deglutition became difficult. The pulse was extremely feeble and quick. Her cries were at times distressing. In the afternoon she became comatose, and could only be roused for a moment. Gradually sinking, without the smallest apparent uneasiness, she ceased to breathe about eleven o'clock.

As this young lass had discharged at least ten pints of blood within the month, it became an object of great interest to ascertain the source, and the family cheerfully complied with my request.

On the 9th I examined the body.—On opening the abdomen, the omentum presented itself in its natural position, covered with a yellowish fat. The intestines were distended, and looked black in some places, as if from dark matter contained in them.

The liver was considerably enlarged, extending to the left hypochondrium. It was of a reddish colour, and scirrhous throughout. The gall-bladder was distended with bile of a nearly black colour, but which on being diluted

became yellowish green—showing that its colour was not from blood. The coats of this viscus were thickened. The spleen was enlarged to double its ordinary bulk, having the appearance and solidity of healthy liver, and containing but little blood. When the stomach was cut into, the mucous coat appeared healthy except near the cardiac orifice. Here there was a spot of redness which presented the appearance of inflammation surrounded with a radius of turgid vessels and ecchymosis, extending about two inches. Though this evidently was the spot from which haemorrhage had taken place yet no abrasion was discoverable. The blood had flowed from a mere point, but haemorrhagic action had been set up in the circumjacent vessels, just as we often see it from a leech-bite. There were numerous petechiae within the oesophagus. The duodenum contained some thick yellowish matter. In the jejunum and ileum there was a large quantity of black morbid matter, which in some places was distinctly mixed with blood, and resembled currant jelly. Within the colon we found some black fæces, and the mucous coat was of a deep red colour—not from turgescence of vessels, but from effusion into the subjacent cellular tissue.

There was a considerable quantity of fat deposited about the kidneys, and these organs themselves were rather large. The pelvis of the left contained some puriform fluid, and there was a large quantity of mucus in the bladder.

The veins of the mesentery were so distended by coagulated blood as to give them an appearance of vessels filled with a black injection.

There was a small quantity of serous deposition in the cavities of the thorax and pericardium, and also in the substance of the lungs.

Viewing this case as now rendered complete, the analysis already given has been confirmed. The liver must have been the primary seat of mischief. Not only would the disease in this organ tend to excite sympathetic derangements in the circulating system, but circulation through it was impeded. The haemorrhage, however, did not result

from mere plethora, but from an irritative action excited in the part, and, perhaps, increasing rather than diminishing as the powers of the body became reduced.

This case deeply impressed upon my mind some of the effects of excessive losses of blood; and some further observations have been published in the work alluded to. Congestion of the vessels in the mucous membrane of the bowels not unfrequently occurs in fever, and a large quantity of blood is sometimes effused,

Aphtha.

There is another condition of the digestive organs connected with impaired assimilative powers, and the effect of which, when seen in the mouth, is usually regarded as sympathetic of gastric or intestinal derangement of another kind. That it is often thus connected cannot be questioned, but it frequently arises as an idiopathic disease, and pursues an independent course—producing the most severe consequences, even to a fatal termination; though this unhappy result is not frequent. Under many forms of disease it occurs to patients of all ages, and is usually indicative of great weakness. It attends that state of the system which may perhaps be regarded as erythematous, and is common among infants at the breast, especially when the nurse is not healthy. To parents and nurses it generally appears as a very slight disease. Domestic remedies failing to restore the child's health, advice is solicited. The bowels are still disordered—the motions being frequent, knotty, acid or fetid, and of various unhealthy hues. The practitioner is informed that the child has the thrush, and on examining the mouth he discovers the disease still pervading the lining of this cavity. Influenced by prevailing hypotheses he may regard the mouth as affected sympathetically, imputing its disease to a deranged condition of the digestive organs, and not take into account all the circumstances bearing on the health of the little sufferer, and on which a peculiar affection of the mucous membrane depends. The mother's milk, the

other food of the child, and the practices of the nurse, ought to be objects of special investigation.

The following cases appear to be deserving of attention :

CASE 1.

On the 27th of July, 1825, I was requested to see the infant of Mr. B—, ~~at~~: six months. It had been very healthy till now, and still remained at the breast of a rather delicate mother, and also took food made of biscuit powder. It had been seized with diarrhoea—the stools being green, slimy, and very offensive, and on the palate there was an eruption of aphthæ. I prescribed an astringent cretaceous mixture, with three grains of hydrargyrus cum creta every other night, and a slight improvement of diet, restricting, however, the quantity. The little patient did not express much suffering, except by an occasional extension of the legs, accompanied by a momentary shriek. The bowel-affection became rather better, but at the expiration of a few days a degree of stupor supervened. A cretaceous mixture was continued, and the bowels were acted on occasionally by a small dose of the pulvis rhæi. Notwithstanding the stupor the eyes remained sensible to light, and yet occasionally there existed so much torpor, that even when the palpebræ were separated objects placed within the sphere of vision were not noticed. On some days the infant looked about it, and at the expiration of a few days the stupor passed off, confirming us in the impression that the cerebral affection was sympathetic in its origin, and not permanent in its nature. The belly was soft. The dejections were frequent and fetid; and variable as to colour: and towards the end of a fortnight they became rather bloody, demonstrating that the disease in the mucous membrane was advancing.

A change of nurse and of atmosphere were now recommended, but both were impracticable.

About the twelfth day the anus became inflamed. The pulse was very indistinct, and the hands and feet were so cold, that although the weather was hot, yet even in bed

with its mother they could not be kept warm. It was remarkable, too, that although the child took but little nourishment, especially towards the latter period of its life, the body did not waste. Very little urine was voided—often none for twenty-four hours, but the stools were watery. There was occasional sickness, but no strabismus or knitting of the eye-brows. The easiest position was lying on the lap, with the head thrown backwards.

It was evident that the affection of the bowels was the primary disease (unless we refer to a state of defective power as having preceded and occasioned it), and no doubt could be entertained that the aphthous eruption extended over the mucous surface of the alimentary canal. The degree of stupor led the friends to look for depletion by leeches, and for the application of blisters; but, on due deliberation, I did not feel warranted in acceding to these opinions. When, indeed, other means directed to the primary affections proved unavailing, four leeches were applied to the temples, and blisters behind the ears, but they seemed to accelerate the infant's death. Such was the defect of circulation—the coldness and torpor for some days before death—that nothing appeared so temporarily useful as small doses of ammonia. For a week or ten days before the infant's decease we lost even the imperfect supply the mother's breast had rendered, owing to her anxiety; and not being able to meet with a good nurse, asses milk was preferred. The powers of life gradually sunk, and death occurred on the 11th of August—without a struggle.

On the following day I examined the body.—

When the scalp was reflected we observed that the peri-
cranium looked red, perhaps from the early age of the child, or a tinge it had acquired subsequent to death. The membranes and surface of the brain were quite healthy, with the exception of there being an exceedingly slight deposition of serum on the anterior lobes of the cerebrum. The substance of the brain was perfectly natural, and the whole of the fluid contained in the ventricles did not exceed one dram.

There were no morbid appearances in the thorax.

Tracing the oesophagus from the mouth no aphthous eruption was discoverable, but the lining membrane was somewhat reddened. The mucous coat of the stomach was red, and towards the pyloric orifice there were numinous round spots of ulceration. Throughout the small intestines the glandulae aggregatae were much enlarged, and the glandulae solitariae in the colon. Through the whole of this intestine, these diseased bodies were very numerous, especially in the cæcum. The matter pervading the canal was in some parts green—in others grey—but in none healthy. The liver appeared to be free from disease, and the gall-bladder full of apparently healthy bile.

We may infer from the latter circumstance that the appearance of the evacuations is not always a criterion of the condition of the liver. The cause of death is not very apparent in this case; but I think we have some warrant to impute it to inanition, without the ordinary effect, namely, emaciation. The temperature of the body and state of circulation were quite indicative of this. The little food received into the stomach passed through it as in a case of tabes mesenterica, and the inactivity of the absorbents generally, was indicated by the child's retaining its bulk.* The defective urinary secretion would quite concur with this rationale. This view of the pathology of the case would lead me to expect that a more pure air, and appropriate diet, might have availed much in restoring the infant.

I shall add another case, much more violent in degree:

CASE 2.

Mrs. H—, the mother of several fine and healthy children, was confined on the 7th of December, 1826. The infant appeared perfectly healthy, like all the former children. About a fortnight after its birth aphthæ were observed in

* It is not very common to see both interstitial absorption and deposition quite at rest in disease. Morgagni observed that it was an unfavorable sign when the sick did not waste. After fevers the interstitial absorption does not appear so relatively active as the process of assimilation; hence persons sometimes become extraordinarily lusty after such attacks.

the mouth, and the excretions were unhealthy. The nurse used some armenian bole, but a week afterwards the bowels became so much disordered that I was consulted. Some cretaceous and astringent medicine, with an occasional dose of rhubarb, was first recommended. At this time the infant lived almost exclusively on the mother, who had plenty of milk, but her nipples were extremely sore. Sickness of the most distressing kind supervened, and the little sufferer ejected every thing taken into the stomach, and consequently daily sunk. The woman who had the charge of the mother and infant was making her *debut* as a monthly nurse, and was not very expert or judicious in the management. The mouth became covered with a thick white sore, extending over the palate and lining the cheeks and fauces. On its being wiped off by means of a soft mop the part appeared raw. Some difficulty of deglutition arose from the accumulation of this matter in the fauces, where it resembled curd. I observed, too, that whenever put to the breast the mother shrunk from it on account of the pain it occasioned, and this, I apprehend, connected with her anxiety, had been detrimental to the infant from the first. Occasionally there was a tinge of yellowness on the skin. The urine was high coloured, and the stools green and fetid. The child lingered on till the 22d of January.

Examination. The mouth was not so thickly beset with aphthous eruption as it had been. There was no appearance of disease in the course of the oesophagus except near the cardiac orifice of the stomach, where the vessels were turgid; and the mucous glands were universally developed.

The mucous coat of the stomach was slightly inflamed in patches. Parts of the jejunum and ileum exhibited the appearance of a turgid state of vessels conjoined with glandular swelling; but at the termination of the ileum, and through the whole of the colon, the mucous membrane was of a deep red colour. The muciparous glands were much enlarged, and in some points slight abrasion had taken place. There were feces in the colon.

The liver presented rather the appearance of congestion,

but the colour of this viscus at birth, and for a little time afterwards, is usually rather deeper than in the adult.* The inflammation of the inner coat of the stomach accounted for the sickness. Dr. Dewes does not view this disease as idiopathic, but the above cases appear in that light.

Inflammation of the mucous membrane.

A state of congestion of the mucous membrane has been already adverted to, but even inflammation may exist, and proceed on to ulceration, with no other signs of its existence, than those which may be attributed to deranged function unless great attention be paid in the inquiry.

About the middle of April, 1816, I was requested to see a poor girl, ten years of age, in one of our public charities. I met the medical attendant, (a most respectable man,) who informed me that the girl had been in the Institution about ten months. He said that she was very healthy at the time of admission, but that she had now been unwell for six or eight weeks. Her symptoms during this time, had been slight fever, disordered bowels, flatulence attended with occasional pain, cutaneous eruptions, mostly resembling scabies, and petechiae, with an abscess in the parotid gland. The diet in the house had not, at this time, been well regulated, and it appeared to me, that she had suffered from defective nourishment. At the time of my seeing her she still had fever. On the legs there were large blotches of

* The sore nipples in nurses are often imputed to aphtha in the mouth of the infant, but I think without foundation. This affection, painful indeed to the mother, is a very frequent cause of indisposition in the child. Not only does the mother shrink from the act of suckling, and render it irksome to the child, but the distressed state of her own mind has a great influence on both the quantity and quality of the secreted nutriment. Where suckling cannot be well accomplished, owing to soreness of the nipples, a wet-nurse should be provided if practicable. A mother is not warranted to suckle for the mere purpose of deferring conception, if her offspring is deprived of that sustenance which nature provided for it. That thrush is often consequent on impaired health, from the cause referred to, I am fully satisfied.

impetigo, and on the back and hands an eruption of papulæ. There was considerable diarrhœa, and slight tenderness about the pit of the stomach. Those parts of the face adjacent to the suppurated gland, were swollen, and the abscess discharged copiously. It was recommended that she should take some liquor ammoniæ acetatis conjoined with infusum cascarillæ, every six hours, and five grains of the hydrargyrus cum creta every other night. For the face a solution of sulphur zinci was recommended.

About a week afterwards, I saw her again; she had less fever, and the general symptoms of disease had abated:—the face also was better, and the eruption had disappeared.

On the 25th, one of the officers of the Institution requested that I would see her again, as she was insensible and convulsed. I learnt, that from the time of my last visit her appetite, which had previously been tolerably good, had become capricious. The stools were more offensive, and voided about twice daily. She had complained of considerable headache—of chilliness—and of pain in the stomach; but the fever was less. The evening preceding my visit, she had a convulsive fit, which lasted a few minutes; but on the succeeding morning the paroxysms returned frequently. When I saw her the convulsions were violent, and life appeared nearly extinct. She died a few minutes after I left the house.

On the following day, I assisted the medical gentleman in the examination of the body.

The mucous membrane of the stomach was inflamed in patches. It did not appear like active inflammation, but the greater part of the membrane, towards the pylorus, was thickened and opaque. There were a few small spots where ulceration had taken place. I was the more particular in examining these spots because the most depending portion of the cardiac extremity was acted upon, to a considerable extent, by the gastric juice. In some places, there were apertures through all the coats, large enough to admit the end of a finger. It was not difficult to discriminate these lesions. The ulcers had a defined and elevated border, presenting

evidence of deposition, as well as of destruction; but the effect of the gastric juice was absolute solution, with a ragged and indefinite circumference. The thickened membrane surrounding the ulcers, showed that a morbid process had been going on, but there was no appearance of disease in those parts of the membrane adjacent to the perforations effected by chemical agency.

The mucous membrane of the colon was also inflamed, and exhibited some black spots where the membrane was greatly softened, and indicated an approach to sphacelation.

The foramen ovale of the heart was sufficiently open to admit a crow quill.

The vessels of the pia mater were greatly distended, and the brain itself was very firm, and, when cut into, exhibited numerous bloody points. There was also a considerable deposition of fluid between the tunica arachnoides and pia mater, but no unnatural quantity in the ventricles.

Associating the symptoms with the appearances presented after death, I cannot doubt that chronic inflammation had existed in the mucous membrane, and that the affection of the head—the immediate cause of death—was induced secondarily. The abscess and general aspect of the child, might have excited the idea that a strumous diathesis existed. It does not often happen that the conglomerate glands are the seat of this disease, but they are not insusceptible of it, for the genuine scrophulous tubercle has been found in the pancreas.

Gastritis and diaphragmitis from medicine.

Though the stomach is capable of great resistance in health, there are states of constitution, and conditions of the organ itself, which render it extremely susceptible of irritation, and inflammation. The following case shows how much caution is necessary in treating subjects of this kind, and enforces the necessity of nice perception, and accurate induction; for external signs, though apparently analogous, may arise from widely different states.

The individual in whom the following circumstances

occurred, was a delicate lady, about thirty-eight years of age, who being engaged in the duties of tuition, with an earnest desire to fulfil them properly, had passed a rather confined and anxious life. For some years, she had been a sufferer from various affections, chiefly assuming the form of bilious attacks, accompanied with headach and sickness, and in the interval of these paroxysms, she was weak and dyspeptic. There generally appeared to be deficient action in the liver. She had little appetite, was tender at the pit of the stomach, and after eating the stomach felt uneasy. Her countenance was often sallow—her breath fetid—her tongue furred—and there was a general sense of debility. She had not menstruated for several years. During the half-year, immediately preceding the period about to be more particularly adverted to, she had felt inadequate to her duties. Various means had been suggested for her relief, and sometimes she became much better, but this relief was usually of short duration, and, at best, her condition was that of a weakly, nervous, dyspeptic woman, but with a mind prevailingly cheerful. Absence from home, and rest during the holidays were generally beneficial. The medicine most useful to her was blue pill conjoined with hyoscyamus, and gentle aperients in some bitter infusion. Occasionally the head was so severely affected that it became necessary to abstract a little blood, which was always buff, though there was no symptom of acute inflammation. As the attacks had become more severe, and some anxiety having been awakened among her friends, a physician was recommended to her, and she waited upon him in February, 1825.

He suggested various remedies, and enjoined total abstinence from animal food and vegetables, so that she lived exclusively on bread and gravy, and light pudding. As she became no better, he at length informed her that all the constitutional symptoms depended on the state of the uterus, and that she would not be better till the functions of that organ were restored. Although this opinion was directly the reverse of that I had entertained, yet it was exactly accordant with the patient's own views, and inspired her

failing confidence with new vigour. The physician directed her to apply one or two leeches just above each groin, once a week, and suggested the use of a stimulating medicine. She applied the leeches at once, and they bled so very profusely—at times, even spitting out,—that a neighbouring medical man was called up in the night to stop the haemorrhage. Her strength was greatly reduced by the loss of blood. She went to Brighton, and used the warm bath a few times, with especial reference to the amenorrhœa, but without avail. She was absent about a fortnight, and on her return again applied the leeches. On this occasion, too, the haemorrhage was not only profuse, but very difficult to repress, even after many hours continuance.

On the following day she reported to the doctor these occurrences. He prescribed for her a draught, containing a dram of *spiritus ammonizæ aromaticus*, with *infusum cuspariæ*, to be taken twice a day. Anxious to do justice to the prescription, she took the first dose in the evening of the same day, and felt it extremely hot in the mouth and throat. It also occasioned tingling on the lips, on which some small blisters appeared the next morning. The inguinal glands became very tender, and the skin surrounding the leech-bites inflamed.

She took another draught in the morning of the next day, and also in the evening, but they burnt the throat and mouth so severely that she resolved not to repeat it. On the 2nd of May I was sent for, and found her labouring under considerable fever.—Pulse very quick—lips swollen, and covered with suppurating pustules—and the mouth inflamed—but I was more particularly consulted respecting the state of the groin, where phlegmonous inflammation had arisen from the leech-bites. A poultice and some opening and saline medicine were prescribed.

On the fourth, I found her still complaining much of the groin, where the glands were swollen and very hard, and she felt great soreness about the chest and throat. At four o'clock the following morning I was sent for, and found her extremely ill. She informed me that the affection

of the throat had increased, and that she felt pain and soreness down the chest, in the course of the œsophagus, to the stomach. The pain was violent at the pit of the stomach, and extended thence through the left hypochondrium. She suffered pain also in the course of the diaphragm, extending each way till it reached a point in the back, corresponding with the attachment of the diaphragm to the spinal column. She could only lie on the back, and whenever she raised herself in bed the difficulty of breathing was peculiarly distressing. She had constant nausea, and ejected every thing she swallowed. There also was great tenderness in the epigastric region, extending along the edge of the ribs on the left side. The pulse was small, hard, and frequent, and the countenance greatly distressed.

It was evident, from the pain and vomiting, that inflammatory action was excited in the mucous coat of the œsophagus, extending to the lining of the stomach. From the dyspnoea and sense of constriction, it was equally apparent that the diaphragm was involved in the same affection. Peculiar distress was occasioned by rising from the horizontal position, which appeared to proceed from the diaphragm's being concerned in the muscular effort.

Notwithstanding her being a delicate woman, and her having recently lost a large quantity of blood, I took from her fourteen ounces, and prescribed an effervescent draught to be taken every four hours, with an opening pill, and a large blister to be applied to the scrobiculus cordis.

In the evening I found the pulse more developed, though yet hard and quick. She had no return of retching, after taking the medicine. The pain and other symptoms remained the same. The blood drawn in the morning was buff and firmly cupped. She had taken nothing except the medicine, and some thin gruel. At seven o'clock in the morning of the sixth I found her still in great pain. The pulse 120, and hard. The countenance, (an important criterion,) was less distressed. The bowels had not yet been moved, therefore a mixture of epsom salts and infusion of senna was directed to be taken every four hours till this purpose had

been effected, and then to recur to the effervescing mixture, The bowels were opened in the day, and the symptoms were mitigated. She passed a tolerable night, but in the morning complained of pain up the right side of the chest, in the course of the phrenic nerve, extending to the neck and chin. Up to the 10th, the symptoms gradually declined under the use of the same means, but on this day a dram of tinct. aurantii was added to each dose, and on the 12th the tinct. calombe was substituted.

She progressively amended, so that by the 24th her general health was much better, but she still felt some pain in the stomach and left shoulder. The stomach was very irritable, and no medicine appeared to act so well with her as a mixture containing infusion of cascarilla with soda, taken in the act of effervescence with citric acid, and every night a mildly opening pill. After persevering on this plan for some time, she realized a better state of health than she had enjoyed for years. Her duties, however, still appeared unfriendly to her anxious mind, and to the easily-disturbed functions of her liver.

This case is highly interesting, inasmuch as it shows the extreme susceptibility, of even a delicate habit, to acute inflammation, and should prove cautionary to us in prescribing for persons whose nervous system is easily disturbed. Many such cases we meet with, and though the effects may not be so apparent as in the case just detailed, they are sufficiently so, to prove the necessity of regarding the temperament of the patient in the adaptation of means. We may remark, too, that in all cases of disordered function of long continuance, though it might have only shown itself by some feature of defective assimilation, there is reason to apprehend the existence of altered structure, and this should weigh in deciding on the course to be pursued. This was the case here, and therefore I shall proceed with the particulars to the examination after death.

The foundation of this state of constitution was laid in disease of the liver, and at different times within the year 1825 she was affected with headache and sickness, and in

1826 she progressively grew worse. We were called to witness not only the advance of existing diseases, but to see new diseases springing out of them. Although these had their germ in sympathetic irritation, yet they issued in organic lesion. In the summer she became ascitic, and in August and September, this was accompanied with indications of hydrothorax. She had violent pain in the region of the liver—some pain across the line of the diaphragm, and in the left hypochondrium. There was much tenderness over the whole abdomen, apparently from peritoneal inflammation, but as it proved, from omental disease. In the summer and autumn I was three times compelled to abstract blood, for the purpose of removing acute symptoms and urgent suffering. She was too weak to bear much depletion, and notwithstanding the symptoms at times became somewhat acute, there was a great deficiency of red blood. Her skin was very pallid, and the proportion of crassamentum to serum in the blood drawn, was very small—therefore I did not venture on taking more than five or six ounces at a time, and the periods were not in close succession. She died on the 25th of September.

Examination. The abdomen contained about a gallon of deep-coloured serum. The peritoneal covering of the diaphragm and the omentum had been in a state of chronic inflammation, the latter being much thickened and consolidated.

The liver was enlarged, and with the exception of one spot about the size of the palm of the hand, was wholly of a dark purple colour, nearly black. The structure of the liver did not appear much affected, but it was throughout of the same dark colour as the superficies.

The stomach was inflated, and externally its cardiac extremity was remarkably white. The whole of the peritoneal surface of the alimentary canal was free from inflammation.

The spleen exhibited opaque patches on its surface, and some small tubercles.

On cutting into the stomach, its mucous coat, near the

oesophagus was found in a state of congestion, and so also was that of the intestines in several parts. The coats of the latter felt thick, and the peritoneal coat tore off with unusual facility. The pyloric half of the stomach was of a deep purple colour. The uterus was remarkably small, and there was a scirrhouus tumour attached by a pedicle to the fundus, externally. Though the omentum was retracted pretty close upon the stomach, yet it was connected with the uterus by a long and very slender filament. This curious circumstance would lead us to infer that adhesive inflammation had existed at a long period antecedently, and that the retraction and consolidation of the omentum had been a very slow process.

The left cavity of the thorax contained about six ounces of bloody serum, and the pericardium about two ounces. The pleura was reddened. The lungs appeared healthy, except in there existing one small calcareous concretion. The pericardium adhered in some parts to the heart, but the adhesion was evidently of long standing. On cutting into the substance of this organ its muscular structure was found greatly degenerated—half of it was black. Though the structure was flabby there was scarcely disorganization enough to constitute melanosis; but the discoloration here, as well as in the abdominal viscera, was perfectly distinct from that which results from decomposition. The other half of the heart was pale as well as flabby. I did not open the head, because there had been no indication of disease there except what was sympathetic.

I shall not dwell upon the case farther than to observe that this is a fair example of the progress of disease. First, we have deranged hepatic function, arising, it is probable, from mental anxiety and application, and occasioning dyspepsia. The cause continues to operate, and is aggravated by the reaction of the effect, for the solicitude of mind increases as the disease advances. The liver becomes in a state of congestion, and, (aided by adventitious causes,) induces more or less of morbid action in the other abdominal viscera. From the increased action and the impeded return of blood, effusion results. There exists a perpetual cause of excitement

of the heart and vascular system, whilst from defective assimilation the muscular energy is not maintained. Under these circumstances we have irregular action of the heart, dyspncea, pulmonary and cerebral congestion. The situation and state of the omentum are worthy of notice, as they bear upon the diagnosis of abdominal disease. Had it been practicable, at an early stage of the disorder, to have removed this lady from a station of anxiety and responsibility, (for it was impossible to lessen her acuteness of feeling on these points,) we have reason to infer that the progress of disease would have been arrested. The examination, when connected with the symptoms, clearly shows that organic lesions may be masked—and suggests the necessity of careful investigation in cases that may appear dyspeptic, but where acute action may be easily provoked.

Gastritis from uterine irritation.

As it forms a part of my design to show the diverse origins of gastric and intestinal irritation, it will not be out of place briefly to detail a case of gastritis connected with uterine irritation. This case does not bear much on the subject of dyspepsia, but as an affection purely sympathetic in its origin it enables us to argue from the greater to the less. The case itself is important, and we may learn from it how greatly dependant one viscus is upon another, and how the irritative action may lead to true inflammation, and this, (as in the preceding instance,) may end in deposition or disorganization.

Mrs. S—, the mother of three or four children, sent for me on the 10th of November, 1820: Whilst pregnant of her first child sickness greatly distressed her. She had now advanced about two months in utero-gestation, and her sickness for several days, but especially on that day, had been very distressing. The retchings were violent, but she ejected very little except mucus. She complained of slight pain in the stomach, and the pulse was frequent. During this day and the next she took saline and opening medicines, but on the 12th the symptoms were aggravated. The

vomiting was very urgent. She felt great tenderness, on pressure, about the epigastrium, and along the right hypochondrium. The tongue was dry and furred except in the middle, and the bowels were open.

V. Sectio ad 3x—et habeat misturam
salinem in actu effervescentia.

On the 13th she was much relieved, and the blood drawn was buff and cupped. There was, still, urgent thirst, perpetual nausea, and frequent retching, though she retained her medicine and drinks. The respiration, which the preceding evening was very quick, was hurried, and on making a deep inspiration she felt pain in the region of the stomach and in the right hypochondrium. The pulse was now 110, and more developed. *Continuetur mistura salina, et admoveantur hirudines xii hypochondriis, et postea applic: scrobiculo cordis, emplastrum lyttæ.*

The bowels had been kept open by occasional purgatives. In the morning of the 14th she felt comfortable, but at night a violent exacerbation took place. The pulse was about 120 and tense. Respiration was very quick, accompanied with a sense of oppression in the course of the diaphragm. The countenance was greatly distressed. There was extreme restlessness and excessive prostration of strength.

V. Sectio ad 3xvi—et habeat pilulæ
opii gr. v. horâ somni et continuetur mistura effer-
vescens.

15th. The blood drawn the preceding night was buff, and the buffy coat very tough. She had been greatly relieved by the bleeding, passed a tranquil night, and had less feeling of prostration. The pulse was reduced to 100 and soft, and there was less tenderness on pressure. She was now, for the first time, allowed a little veal broth.

Instead of the saline she was now directed to take some nitrate of potash in the almond mixture, with five drops of tincture of opium, every four hours, and she continued improving up to the 20th. The sickness had not ceased, and occasionally was very distressing. She had lost the

sense of oppression, and the sensibility of the hypochondria was much abated, but she had still some tenderness below the umbilicus.

On the morning of the 20th uterine haemorrhage came on accompanied with pain. The pulse was 120 and wiry, and the countenance distressed. *Habeat infusi rosæ ʒj cum guttis v Tinct: opii. quarta quaque hora.* It was evident that she would abort.

21st. The haemorrhage abated yesterday after taking the medicine, but it recurred this morning profusely, unattended with pain. At two o'clock abortion occurred, when the haemorrhage was appalling. I was not able to see her till four o'clock. She was covered with cold perspiration. The pulse was quick and feeble. The face was exsanguis, but the discharge was now moderate.

A little wine was allowed. The apartment was cooled, and the mixture continued.

The sickness now had nearly ceased, and by the following day went off entirely. Nothing remarkable occurred afterwards. Her recovery of strength was slow, and this in a measure was impeded by her efforts to advance more rapidly. By eating too freely, and admitting more society than she could bear, a state of cerebral congestion, (so common after excessive loss of blood,) and fever was induced, and occasioned extreme susceptibility.

Gastritis was here evidently occasioned by sympathy with the uterus, and it was interesting to observe that although the inflammatory affection was lessened previously, yet the sickness was not overcome till the ovum was thrown off.

Sympathetic affections sometimes consist of mere irritation in the part, which ceases as soon as the cause is removed; but not unfrequently the effect will be more permanent. We have no reason to suppose that if miscarriage had happened when gastritis had been set up, the inflammation would have ceased without appropriate measures. In the vomiting which attends some affections of the head—arachnitis for instance—the sympathetic irritation often induces an extremely reddened condition of the mucous membrane

of the stomach. A state of heightened susceptibility usually attends utero-gestation, and renders the individual more liable to sympathetic derangements. This principle must be regarded in the treatment of milder derangements, for, however essential it may be to remove the primary affection, special means are often required for those affections that are secondary.

It has been already intimated that the organic diseases do not come within our plan, except so far as they involve some obscure symptoms liable to be mistaken for mere functional derangement. The two following instances are not precisely of that character; but by showing how insidiously organic lesions sometimes occur, they inculcate the necessity of accurate investigations and cautious treatment in cases of visceral disease.

Gastritis ending in sphacelus.

On the 10th of July, 1823, I was requested to see a young lass four years of age. The parents informed me that she had been ill about a month, and under the care of a neighbouring surgeon. He considered it an attack of remittent fever. As the child was not better at the end of a fortnight, a physician was consulted, who regarded the case as one of peritonitis, and prescribed leeches, which were four times applied, but in the whole amounted only to twenty. About ten days more had elapsed when the friends thought that death was approaching and sent for me, but the case was hopeless. At three o'clock the following day the child died, and having been informed that the medical attendants had not coincided as to the nature of the disease, I was the more anxious to examine the body, and the parents readily assented.

Before proceeding with the examination, I obtained the following information. The child had been healthy till the commencement of this indisposition, when, after a hearty meal, she was attacked with sickness, the bowels became torpid, and the dejections of an unhealthy colour. Fever succeeded, and was accompanied with dyspnoea. The

gentleman first called in told me that he had thought it right to act boldly, and had given very powerful medicines—for instance, six grains of calomel at a dose repeatedly. After the first attack there was but little sickness, and there had been very slight expressions of pain. When I saw the child there was great prostration of strength, respiration was difficult, the tongue was dry, and the teeth were covered with sordes. The pulse was very quick, and there were excessive restlessness and moaning. She had pretty constantly lain on the right side, and superficial sphacelation had taken place from pressure. There also was a petechial spot on the abdomen. The countenance was pallid, the eyes depressed, and during sleep the palpebrae were unclosed.

The two medical gentlemen were present when I examined the body. The physician, (a very judicious man,) had abandoned the idea of peritonitis, and now predicted that few or no morbid appearances would be found.

The abdomen was tumid and tense, and on opening the cavity there certainly was no trace of peritoneal inflammation. The stomach and intestines were greatly inflated, and on merely turning the stomach to one side its contents escaped. The viscous and a portion of the œsophagus were carefully removed, and the inner membrane of the latter was found to be inflamed, and the whole of the adjacent portion of the stomach was in a state of sphacelation, of a deep black colour, and the texture destroyed. Inflammation extended some distance beyond the part where sphacelation existed, and the disorganized part was equal in extent to the palm of an adult's hand. There were no other morbid appearances except slight marks of congestion in the liver, and a few patches in the intestines. The physician considered it an extraordinary circumstance that gastritis should have existed without its being accompanied with vomiting. It appeared to me that no inconsiderable mischief, if not the fatal result, was attributable to the injudicious practice of the apothecary, who, however, was rather inclined to exult at his boldness before the physician was consulted.

Softening of the stomach and intestines.

In April, 1826, I was requested to see an infant six months old. It had previously been remarkably healthy and had cut two teeth, but became ill about the beginning of the month. The symptoms were those of cold; namely, cough, wheezing, sneezing, and inflammation of the conjunctivæ. A week elapsed without any advice, and when I saw the child there was difficulty of breathing and frequent cough; and the piercing cries and green stools indicated pain also in the bowels. Leeches, a blister, antimonials, and mild aperients were the means employed, and in a few days there appeared some amendment. At the end of a week symptoms of cerebral affection became manifest. During the preceding part of the indisposition there had often been knitting of the eye-brows, but it seemed rather an expression of pain in other parts than of disease in the head, but now the child fell into a state of coma and became convulsed. Leeches were applied to the temples, half a grain of calomel with a little antimony was given every four hours, and a blister was applied to the nape of the neck. On the second day from this time the coma and convulsions ceased. The calomel was omitted, but saline and antimonial remedies were continued. Whilst we were buoying ourselves up with lively expectations of recovery, the respiration became more difficult, diarrhœa supervened, accompanied with great rumbling in the bowels from wind, and within a few days, namely, on the 18th of April, the little sufferer expired.

On dividing the integuments I found a large quantity of fatty substance remaining. The posterior surface of the lungs was the seat of inflammation, but not to a great extent. There was no sign of inflammation in the abdomen, but on tracing the jejunum I found it tear, in several places, like wetted paper. The coats here looked exactly like jelly, semi-transparent and soft. In the interspaces they were firm as usual. The fundus of the stomach was precisely in the same condition. The appearance greatly resembled that produced by the action of the gastric juice, but as there had been

previous disorder of the gastric organs, and as the intestine had undergone the same change as the stomach, it seemed rather the effect of a peculiar morbid process than of chemical action.*

The brain was soft, and considerable effusion had taken place between the membranes, but there was no unusual turgescence of vessels.

In the incipient stage of scirrhus of the pylorus, the symptoms not unfrequently present the appearance of dyspepsia from mere functional derangement. Therefore, when these symptoms occur in a patient who has passed the meridian of life, the possibility that they may arise from organic lesion in a chronic form, or are the precursors of great organic changes, should not be forgotten. But where there is no change of structure, the functions of the stomach are frequently disturbed when the biliary secretion is not unhealthy.

Dyspeptic symptoms, from chronic inflammation of the peritoneum.

It has already been intimated that the symptoms attendant upon inflammation of the serous membranes, are generally more acute than those which denote that of the mucous. They are more liable to adhesive inflammation, but even this will sometimes express itself by very mild and equivocal signs. Under chronic inflammation of the peritoneum the symptoms may be so obscure, and those demonstrative of disordered functions in some or all of the digestive organs, so prominent, that the real condition of the patient is liable to be overlooked. I have already published a case, which so clearly elucidates this fact, and also other facts relating to sympathetic derangement, that an analysis of the details may not be uninteresting.†

* Leuret and Lassaigne believe that when the intestinal secretions are mixed with bile they form a solvent quite as active as the gastric juice.

† Vide Abridgement of Morgagni, vol. ii. p. 68.

A young woman about twenty-eight years of age consulted me on the 26th of November, 1815, having been indisposed for seven months, and under the care of a respectable practitioner in London. He regarded it as a case of dyspepsia, and treated it with alterative mercurials, tonics, bitters, warm salt-water bath, and sea air, but without advantage. She had obtuse pain in the abdomen, slight tenderness on pressure, occasional attacks of spasm of the integuments, irregularity of the bowels, pale dejections, anorexia, disturbed dreams, deficiency of urine, amenorrhœa, and debility. The pulse was natural, or but little raised above the healthy standard. Mercury, even in a mild form, was injurious, and bitters and the milder diuretics, had no effect on the gastric or urinary secretions. Having satisfied myself as to the nature of the case, she was directed to apply ten leeches to the abdomen, repeating them at intervals of a few days, and a blister. An oil of almond emulsion, with a few drops of tincture of opium, and occasional doses of castor oil were prescribed. The diet recommended was milk, vegetables, and light puddings. She soon felt better. At the end of a fortnight she had intimations of the catamenia, the flow of which was promoted by fomentations. The other secretions were progressively established—all the symptoms subsided, and a light tonic, with a few doses of blue pill, completed the recovery.

It is highly interesting in pathology, to observe how much the existence of morbid actions in one part, controls the functions of other parts. The primary affection in this case was chronic peritonitis. The suspended action of the liver, as well as its occasional morbid secretion—the suspension of uterine action—the deficiency of renal action—and probably the imperfection of other abdominal functions, were consequences of that primary disease. Till that was subdued, mercury had no good effect on the liver, chalybeates (given by the former medical attendant) had no effect on the uterus, nor did diuretics influence the kidneys; but as soon as inflammatory action was overcome, the secretions of the liver became healthy, and the functions of other organs were either at once restored, or were established by gentle excitement.

It has been already observed, that disease which at first was sympathetic, may obtain independent existence, although generally, it will be subject to that disease which induced it. This circumstance shows the futility of relying on one remedy in our attempts to restore the same viscus, under various relative conditions, to healthy action.

The case I have adverted to, is not insulated. I might have added many similar cases, but shall adduce only one instance more—chiefly, indeed, involving the omentum and peritoneal coat of the bowels. This will show, in a very striking manner, the insidious nature of the disease,—even when it extends to the formation of abscess,—the care necessary in distinguishing the sources of dyspeptic symptoms, and the danger of irritating remedies in inflammatory cases, even when they are unattended with active symptoms.*

CASE 2.

On the 6th of June, 1812, I was requested to see Mr. T_____, about twenty-three years of age, and apparently of a strumous habit. For two months he had experienced dyspeptic symptoms, but they were so slight that he had not even solicited advice. He had loss of appetite, uneasiness and fulness at the stomach after eating, fetid taste, constipation and debility. These symptoms were attended with a difficulty in making water, from a sense of obstruction in the urethra, and occasional pain above the right groin. As he sold drugs, and knew something of their properties, he occasionally took a little medicine, and immediately before my being called in, he had taken five grains of calomel, which had produced rather violent diarrhoea.

On this, fever, and an increase of the pain in the penis and inguinal region had supervened. There was no swelling in the groin. Saline medicine, and bland nourishment were recommended.

The fever by the 8th had lessened, but there was sickness and occasional pain in the bowels and groin. He passed a

* This case also is cursorily mentioned in the work alluded to above, p. 52, and the points in question had not escaped the observant eye of Morgagni himself.

good night, but on the 9th the tenderness, tension, and pain of the abdomen had increased. He made but little water. Nitrate of potash with tartarized antimony, were given him, and the abdomen was fomented: The pain on the 10th was considerably lessened, but returned at intervals. The bowels were open, and stools bilious; the tongue was furred, but the pulse did not exceed 90. He still made but little water.

The late Dr. Buxton was called in, who advised that the draughts and fomentations should be continued, and that five grains of blue pill should be taken every night.

On the 11th and 12th, he continued convalescent. He rose from bed, passed more water, and had about four dejections daily. He could not bear much pressure on the abdomen, particularly about the right groin.

During the early part of the night of the 12th he had considerable pain, but towards morning slept three hours. At eleven o'clock a. m. on the 13th, I found him moderately easy, though occasionally in pain, especially in the penis and groin—where, at times, it was extremely severe. He had voided about five ounces of urine at once. *The pulse was 80, and natural.* The tongue was cleaner—stools were plentiful—and appetite was returning. At one o'clock, he partook of chicken, and drank a little broth, congratulating himself with feeling better. About an hour afterwards, the pain which he described as drawing the bowels to the back, recurred with sickness, and unavailing propensity to make water. The abdomen became very tense and tender, and the pulse full. He was bled, and leeches were applied to the abdomen and perineum, and also fomentations. Blistering was objected to on account of the spasm of the urethra, but sinapisms were laid on the abdomen. In the evening he had less pain, and had voided some urine, but felt a difficulty in speaking. His skin was cold and clammy, and the pulse indistinct. The vital powers rapidly declined, and he died at three o'clock.

I examined the body on the 15th.

On opening the abdomen, about eight ounces of fluid resembling whey, containing flakes of coagulable lymph,

escaped; and about fifteen ounces were collected afterwards. The omentum was highly inflamed, adhering at the lower part, (where the inflammation was most severe,) to the peritoneum anteriorly, and to the intestines posteriorly. The intestines were inflamed, chiefly about the lower part of the abdomen, and generally adherent. In the right groin, the convolutions of the jejunum and ileum were so closely united with the cæcum as to form, by the lymph thrown out, the walls of an abscess, containing about five ounces of pus. It rested on the peritoneum covering the psoas and iliacus internus muscles. The peritoneal coat of the intestines, in the part which had encircled this abscess, was destroyed by ulceration.

In some portions of the small intestines, there was beginning sphacelus, and the ascending colon was slightly inflamed.

The stomach was a little blood-shot. The liver was healthy and the gall-bladder was full of natural bile.

It was evident that the affection of the penis was sympathetic, and arose from the irritation of the right ureter, which was involved in the abscess—and the deficiency of urine was owing to the same cause. That inflammation had existed long antecedently to my being consulted, there was abundant evidence, but it was masked under the form of dyspepsia... We learnt after his death, that the calomel he took had been so carelessly prepared, that its spiculae were coarse and irritating. This accounted for its powerful effects on the bowels, and for the development of more active symptoms than had previously existed. Though the symptoms were extremely mild when the degree of lesion is considered, yet from extended observation and experience, I am convinced that they were sufficiently characteristic of subacute inflammation. Depletion should have been earlier had recourse to, and though it is probable that the patient would not have borne the lancet to a great extent, the application of leeches, or cupping might have been useful, and at that period, a large blister might have been safely applied. Gentle mercurializing, (with caution against irritation of the

bowels or constitution,) if resorted to early, might have counteracted the adhesive inflammation.

The case has been related exactly as it occurred, to show that the pulse must not always be regarded as the criterion of inflammation.

Owing to the connexion which subsists between the stomach and omentum, the diseases of the latter are often disguised under the form of gastric derangement. Tumours and inflammation of this membrane, have, in their early stage, only been attended with symptoms which in many respects resembled dyspepsia.

Derangement of the digestive organs from renal irritation.

Perhaps no viscus has more manifest influence on the functions of the digestive organs than the kidneys. It must be admitted, however, that not unfrequently, great disorganization has taken place in this organ—or, a large and ramifying calculus has been found in its pelvis, of which there had been little or no expression during life. But at other times, slight inflammation, or the irritation of a very small concretion, not only produces violent pain, especially when passing through the ureter, but proves a source of severe and complicated sympathy. The sympathetic derangement will sometimes exist when the symptoms of renal disease has been scarcely observed.

CASE 1.

On the 26th of December, 1822, I was requested to visit a lady, who had been indisposed for several days. Her chief complaint was of pain in the right kidney. She had passed gravel before, and three years antecedently voided it in large quantity. I apprehended that the same result would happen now, and as the pain in the region of the kidney was very severe, and was increased by the motions of the leg, it seemed probable that a small calculus was passing the ureter. She voided urine freely, but a few days before my visit it was of a very deep colour. She had excessive

nausea, and the bowels were rather confined. She was recommended a dose of calomel and scammony, and afterwards, a dram of sulphate of magnesia in cretaceous mixture every six hours. The powder occasioned great irritation, and she thought the mixture increased the nausea. The bowels, however, were opened, and the pain lessened in violence. On the 27th she was directed to take the effervescent mixture, and at night an opiate pill with calomel. On the 28th she was better, and menstruation had commenced.

By the 6th of January she was much better, but still the stomach was easily nauseated. She had occasional pain in the kidney, and described it as extending thence, in the course of the ureter, to the bladder, but the more prominent symptoms evidently related to the organs of digestion.

On the 8th she complained of pain in the right hypochondrium, apparently from hepatic congestion—or subacute inflammation—and there was a slightly yellow tinge of the skin. *Habeat pilulæ hydrargyri gr. v. omni nocte, et infusi rhæi 3vj. in haustu, cum aqua aromatica, ter die.*

The stomach was now influenced by a double cause, renal and hepatic, and the nausea was considerable. She informed me on the 10th, that when attempting to swallow the pill, though she had no aversion to that form of medicine, yet it produced such violent retching that she was unwilling to renew the attempt. She had persisted in taking the mixture, which had kept the bowels open, and she felt considerably better.

When calling on the 14th I learnt that twice since my last visit she had taken a pill, but felt so much worse after each, that she resolved to discontinue them. On the 17th she was much better, though occasionally sick, and sometimes feeling darting pains through the kidney. She requested a truce from medicine.

Passing the house on the 20th, I called in, and found her very unwell. She complained of thirst, unpleasant taste, impaired appetite, frequent sickness and debility. The stools were quite white. There was at this time, so little evidence of renal irritation, that I thought it possible, the

secondary affection might be kept up *per se*,—and that a gentle mercurial might now be beneficial. Half a grain of calomel was prescribed with a mild aperient, to be taken every other night, and the following mixture:—

R Mist. Salinæ $\frac{3}{2}$ vss.
Tinct. Calombe $\frac{3}{2}$ ss.
—Hyosciami 3j. Misce

Capiat partem quartam ter die.

She pursued this plan till the 28th when she informed me, that every time after taking the powder, she felt extremely ill—sick, and generally uneasy, with a coppery taste in the mouth, and much spitting. Notwithstanding this, she thought they had been useful, for the feces were of better colour, and she felt well.

This pleasing state of things, however, did not continue long. She became again easily nauseated, and the secretion of the liver was suspended. There was occasional pain in this viscus, and also in the kidney. These symptoms continued till the month of March, when, at a short interval, she voided two calculi of a rather large size, and immediately became quite well. There was no direct evidence when these calculi passed from the ureter into the bladder; but as the affections of the digestive organs, and pain in the kidney, subsided directly after they were voided, there is sufficient reason to suppose that their residence in the bladder had been but transient.

We have here some points on an interesting nature, corroborating observations already made. There is sympathetic sickness; and also suspended action of the liver and congestion, from the same cause. We have also an example of the irritating effects of even the mildest doses of mercurial preparations, when the liver is under the influence of irritation from disease in some other organ. The lady to whom these particulars refer, was not ordinarily distressed by mercurial remedies. We have also irritation expressing itself by no very manifest direct evidence, but producing powerful effects on distant organs. This fact which is of

great importance in pathology, will be further elucidated by the following case.—

CASE 2.

Mr. B—, æt. 65, sent for me on the 29th of January, 1809. He complained of considerable pain in the loins, and of imperfection of vision, but the latter affection he imputed to having greatly fatigued the eyes in executing some fine drawings. As he was subject to rheumatism, the affection of the back was considered as lumbago, and guaicum, with occasional small doses of calomel, was prescribed for him.

By the 8th of February, though the pain was occasionally better, he was greatly reduced in strength, the bowels were relaxed, and the appetite much impaired. He took some decoction and tincture of bark, and at night a few grains of Dover's powder, but without advantage; and on the 20th he requested permission to discontinue medicine.

Soon after this time he consulted an eminent physician in Town, but he being unable to detect the seat and nature of disease prescribed for him little medicine, and that not satisfactorily. The pain of the back somewhat lessened; but the debility rather increased, and at times was so great as to confine him to his room.

Towards the end of April, he became irascible in mind, and irritable in body. His stomach frequently ejected its contents. In the night he slept but little, and had an almost insatiable desire for liquid food. This did not arise so much from thirst as from a sense of want, and so urgent was the inclination that if the supply were not presented immediately on being solicited great excitement was occasioned.

He arose about nine in the morning of the 5th of May, and having taken an aloetic pill the preceding night he voided a formed dejection early in the day. He complained of an uncomfortable sensation in his head,—one which, though not pain, led him to express an apprehension of losing his intellect—and soon afterwards he had a fit. He fell senseless into his chair, and soon became much convulsed in his legs and arms. He foamed at the mouth, and

moaned in a distressing manner. I saw him about ten minutes after the commencement of this attack. He was senseless—breathing slowly—and vomiting large quantities of bile. His countenance was pallid, the pupils were contracted, and the pulse was nearly imperceptible. Voluntary muscular action had ceased. He was lifted on the bed, and soon revived. Regarding the attack as somewhat of the nature of syncope, a little brandy and water was given him. His sickness soon returned, and continued to recur from the slightest ingurgitation of fluid—even a tea-spoonful excited it.

Owing to the patient's insuperable aversion to medicine nothing was administered till he took an anodyne draught in the evening. This remained only a short time, but during the night he slept considerably. Notwithstanding this repose, however, the retchings immediately recurred on his waking; indeed, he sometimes appeared to be awakened by sickness. The pulse at this time did not exceed 70, and was but slightly firmer than usual.

On the 6th of May he remained much the same as now described. Acids were rather grateful to him, and a few drops of dilute nitric acid were prescribed for him in a pleasant bitter, with four drops of laudanum, but his stomach would not retain it. His physician saw him in the evening of this day, and suggested his taking the effervescent draughts in very small quantities, but the extricated gas appeared to excite the retching more instantly than any thing else.

A blister was applied to the epigastric region, and a laxative enema administered.

The symptoms continued so distressing, that it was necessary to repeat the opiate. He was unable to swallow pills, and therefore I gave him thirty drops of laudanum in a tea-spoon, with a few drops of weak liquid. For two hours the retching did not recur. He passed a tolerably good night, occasionally sleeping for two hours in continuance. The pulse at this time was a little increased in frequency, but it varied greatly within a very short period.

Other means were tried, but nothing remained on the

stomach; therefore a consultation of physicians was held on the 8th, and just as they entered the house he was seized with another fit, which continued for half an hour. Their united opinion was, that these attacks proceeded from disease in the stomach, and not from any cerebral affection. The functions of the brain appeared to be quite perfect—there was no headach, nor were the mental faculties impaired.

At this consultation it was agreed that the patient should take a grain of cicuta every six hours, and an anodyne at night, but he was only able to take one powder. He then ceased taking medicine.

On the 10th it was evident that he was gradually sinking. His sickness, indeed, had abated, but he took little sustenance, and was scarcely able to speak, though quite sensible. Contrary to expectation, he lingered on to the night of the 13th, but during the last day and a half he lay in a state of unconsciousness.

On the 16th, in the presence of the physician, I opened the body.

The season having been warm, considerable change had taken place in the corpse. The stomach was removed and carefully examined. It looked perfectly natural, as well throughout its lining membrane as at the pyloric orifice. Tracing the small intestines no lesion was discoverable, but a considerable mass of hardened feces was lodged in the cæcum, in different parts of the colon, and rectum.

The liver appeared healthy, but the gall-bladder was greatly distended with bile of a reddish colour—tinged perhaps after death. On its villous lining, a small ulcer was detected, and a portion of concreted substance adhered to this spot. There was no obstruction of the biliary ducts.

The spleen, the pancreas, and right kidney, partook of the general lividness, the result of commencing decomposition; but there was no evidence of organic lesion. This, however, was not the case with the left kidney, which was enveloped in more adipose substance than the right, and was greatly disorganized.

As there had been no suspicion of cerebral disease the head was not opened; indeed, the body was not in a favorable condition for examining the brain, or we should have felt it of importance notwithstanding the absence of direct indications.

It seemed probable that the abrasion of the gall-bladder had arisen from the recent escape of a concretion from between the coats, and which had passed the common duct. Had the sickness depended on its escape, we should probably have had some evidence of its transmissions from pain or obstruction of the duct. Although from the state of the body we were unable to ascertain the precise nature of the lesion in the kidney, we could not doubt that it had long been the seat of disease by which its texture had been destroyed; and knowing that the most intimate sympathy exists between the stomach and kidney, we felt fully justified in imputing the disordered function in one to the structural disease of the other.

These cases are sufficient to show the agency of the kidney in producing disorder in the functions of the digestive organs, under which the secondary affection may become so prominent, and be produced by causes operating so silently, that the true condition of the organs may evade detection. If we apply these facts to a diminished state of gastric irritation we have a form of sympathetic dyspepsia, showing the necessity, in obscure and protracted cases, of the most careful and extended investigation.

Influence of the Brain on the Digestive Organs.

The influence of the brain on the digestive organs, especially on the stomach, is very manifest in cases of injury, and if not equally clear, it is not less certain in cases of disease, whether it be of inflammation, congestion, hydrocephalus, or disorganization. When disease manifests itself in the head and abdominal viscera almost simultaneously, the affection of the former, in the present day, is usually attributed to some derangement of the latter. Opinions guide us in practice, and if erroneous they may lead to the

adoption of very detrimental measures. I shall relate two cases in which some ambiguity had existed, and a third case no otherwise connected with the subject of dyspepsia than by illustrating the mutual dependence of the head and the stomach.

CASE 1.

On the 24th of August, 1824, a gentleman sent to me his groom, a young man of spare habit, with a request that I would prescribe for him. The young man informed me that he had generally enjoyed good health, but for two or three months he had felt unwell. The indisposition commenced with some pain in the head; more especially, however, with giddiness on stooping, accompanied with considerable derangement of the stomach, and constipation. He had been under the care of a medical man, who viewed the affection as nervous, and as originating in the digestive organs. He decidedly objected to bleeding, but the means he had recommended were entirely unavailing.

The symptoms as described at my interview with the patient were as follows. Giddiness on stooping, and great confusion when he had many things to occupy attention, but no headache. Great dejection of mind, and the appetite impaired. A feeling of great debility about the umbilicus, and some uneasiness in the stomach after eating. His sleep was broken, but he was not much annoyed by dreams. His eyes were rather suffused, and the pulse somewhat quick and hard.

From this narration, and from the inefficiency of the means employed, I was led to infer that a state of cerebral congestion existed, and was the cause of all the other symptoms. Under this view he was bled. The blood flowed in an impetuous stream, and when about twelve ounces had been withdrawn syncope ensued. An active dose of calomel and jalap, followed by saline aperients, was prescribed for him, and he was desired to abstain from meat and fermented liquors. The medicine acted freely on the bowels, and on the 30th he described himself as being nearly well. The

head was better than it had been for many weeks. He was directed to continue the mixture, and not to call again if tolerably well. His master informed me soon after, that his groom had quite recovered.

CASE 2.

On the 11th of September of the same year, a lady about thirty years of age, stout and florid, very active, and having an infant at the breast, requested my advice. She had undergone considerable exertion and anxiety from protracted illness among her children, and during the preceding fortnight or three weeks she had been very uncomfortable from disease expressed by the following symptoms: loss of appetite, sinking at the stomach, flatulence and irregular bowels, dejection of mind, conjoined with some pain in the head, sometimes with swimming and confusion, and occasionally attended with tingling and numbness in the extremities. At first I suspected that the gastric system was primarily and chiefly in fault, and prescribed five grains of the pilula hydrargyri every other night, and a lightly tonic mixture. These means, however, were of no use till about fourteen ounces of blood were abstracted, when she became well immediately. She felt cheerful, and needed nothing to regulate the bowels or to excite appetite, and was able to resume her duties with satisfaction.

I have already intimated that the case about to be related is no otherwise connected with derangements of the digestive organs, than as it tends to show how very deceptive are some of the sympathetic derangements of these viscera. It is a case of cerebral congestion, but the state of the stomach greatly misled the practitioner.

CASE 3.

On Wednesday, the 6th of December, 1820, a friend called upon me at twelve o'clock at night, to request my immediate attendance upon an old servant of his, who had been confined with her fourth child about five days. She was attended by a midwife, and the delivery was safe and

moderately easy. During three days she had been gratuitously attended by a neighbouring and respectable medical man. The following history was given me of the origin of the attack, and of the progress to the time of my visit. On Saturday, the day after her confinement, she lifted a child two years old into bed, and felt as if something gave way within her body. She was immediately seized with faintness and coldness. The nurse administered a little brandy, and the patient revived. On this, vomiting supervened, and the efforts were almost perpetual, so that both fluids and solids were ejected. During these laborious exertions in vomiting, she raised herself upon her elbows, which were considerably swollen, and the knees also were painful. The stools were very offensive and of a pale yeast-like colour. The head was painful. The attention of the medical man had been directed exclusively to the sickness, which he regarded as the result of a bilious attack. The symptoms rapidly grew worse, especially the pain in the head, which issued in delirium. In this state I found her, incessantly talking, and her fingers in perpetual motion. The pulse was 130 and intermittent. There was extreme prostration of strength, and profuse perspiration; but there was no tension of the abdomen nor any marked tenderness, and the uterus was properly contracted.

Although she appeared almost *in articulo mortis*, I judged it necessary to bleed her, but when about eight ounces had been withdrawn, the pulse sunk very greatly, and became scarcely perceptible. The disease had so far advanced that though it was giving her the only chance, yet the chances were nearly hopeless. Frequent and free doses of calomel were recommended, with small doses of effervescent mixture. The hair was cut from the head, and cold lotions applied; and a blister was laid on the back of the neck.

She passed a sleepless night, but when visited at six o'clock in the morning she was more tranquil. Though she knew the people about her she was talking incoherently. The pulse was scarcely perceptible, and was beating irregularly and about 140 in the minute. Perspiration was very profuse, and the countenance less distressed. The eyes were

somewhat piercing, but the pupils were not contracted. At this early hour she knew me, but when I met the medical man who had attended her, at nine o'clock, she was more unconscious and evidently dying.—She expired at two o'clock.

On the following day I examined the body.

The abdomen was tumid, and, on its being opened, the large and small intestines were found inflated to a great degree. The caput coli and ascending colon were double their natural volume. A little above the caput coli I was surprised to find this dilated bowel suddenly contracted to about the thickness of a thumb, without the existence of any obstruction. It was again as abruptly dilated, and contracted in the left iliac region to a thickness not exceeding that of a finger, but at the sigmoid flexure it resumed the natural size. There was no peritoneal inflammation. The stomach was contracted and empty.

The uterus occupied the pelvis, but filled its superior aperture. Its surface was somewhat bloodshot, and the right ligamentum latum was of a deep red colour as if ecchymosed—an appearance which probably had resulted from labour. The os uteri was rough and had not recovered the appearance of corona. The unevenness principally consisted of two prominences, as if slight injury had happened during parturition, but there was no apparent wound or inflammation. The parietes of the uterus were natural, and its internal surface was covered with the lochial discharge. The place at which the placenta had adhered was quite obvious by the prominence of vessels.

I have been thus particular in describing the condition of the womb, because cerebral affections occurring in the puerperal state are usually connected with some morbid process in the uterus, but here, I believe, there were no appearances to justify such an opinion.

The scalp, posteriorly, adhered very firmly to the skull. The dura mater, also, was so adherent to the inner surface that great force was necessary to detach it; and when detached a large quantity of blood issued from the turgid

vessels. The pia mater was extremely vascular, and in two places a drop of blood had been effused. The vessels of the lining membrane of the ventricles were very turgid, but very little fluid had been deposited. A vessel on each side passing through the tentorium, was so turgid, and the blood was so fluid, that it flowed in a copious stream when the coats were lacerated. The vessels of the cerebellum were as turgid as those of the cerebrum, and at the base, as well as at one point in the substance, slight extravasation had taken place.

There cannot be a doubt that the irritability of the stomach arose from the state of the head. Had depletion been early employed, this woman, a wife and the mother of four children, might have been saved; but by taking too limited a view of the circumstances, and regarding the gastric as the primary and principal disease, the attendants were deluded; temporising and trifling expedients were adopted, and no alarm was excited till death approached.

The case shows not only the influence of the brain on the stomach, but also on the bowels—and the alternate contractions and dilatations may, perhaps, explain the manner in which intus-susceptions occur. I have witnessed these abrupt spasmoid contractions in other cases, but have seen no other in which the contraction did not resist ^{ed} inflation. In the specimen, taken from the case described above, the contraction is as defined in the dried state as it was in the recent subject.

Viewing a case of this kind we are led, on the present occasion, to argue from the greater to the less, keeping in mind not only in the treatment of disease, but in examination after death, that the brain is differently influenced by the same cause in different persons. Not only does a slighter degree of pressure cause paralysis in one person than in another, but a degree of irritation in the brain, which in some persons occasions little inconvenience, induces great distress in others—rouses acute symptoms, and disturbs the functions of distant organs.

Cerebral congestion producing convulsions and intestinal contractions.

We are so accustomed to impute infantile convulsions to overfeeding, or to some derangement of the gastric organs, that the following particulars of a case which apparently originated in cerebral plethora, may not be wholly irrelevant or uninteresting.

In the evening of October 22d, 1822, I was requested to see an infant about three or four months old. The child had been seized with convulsions twice in the afternoon, and for some days it had been observed straining violently. I was informed by the mother, who had nursed several children, that the bowels were freely open, and that the stools were of a good colour; and yet the straining continued. At the time of my visit it was considerable, and the countenance had a somewhat leaden aspect. There was constant rumbling from the increased peristaltic action of the bowels and from wind, and the abdomen was rather tumid. With the exception of taking a little gruel once soon after birth, the infant had lived exclusively on the breast and had appeared healthy. There was no convulsion when I saw the child, and therefore I prescribed for it a dose of rhubarb and some *mistura cretae* to take afterwards to allay intestinal irritation. On calling the next morning I found the little patient dead. Convulsions had come on early in the morning, and the child expired.

The body looked rather yellow, and the nurse informed me that there had been this tinge for a day or two. On dividing the abdominal integuments I observed that the cellular substance had received the same discoloration.

Nothing unnatural presented itself in the abdomen except a somewhat turgid state of the vessels of the stomach. The omentum was very beautiful, from the numerous lines and inosculations of vessels ramifying through a most delicate and transparent tissue, but the appearance was natural. The intestines, as in the former case, presented marks of irregular contraction, and were rather of a redder hue than

usual. The gall-bladder contained bile of a dirty brown colour, and there was no perceptible obstruction in the ducts. The urinary bladder was greatly distended—projecting high into the abdomen—yet so large a quantity of urine had been voided that the nurse's attention had been particularly directed to the circumstance. The stomach was empty, but the mucous coat presented considerable erubescence. The kidneys were rather large.

In the chest the thymus gland presented itself as usual at this age. The lungs were healthy. The pericardium contained a little fluid, and the vessels of the heart, as well as its cavities, were turgid with fluid blood.

On opening the head I found the pia mater extremely vascular, and in the interstices of the larger vessels there was a serous deposition which presented both the appearance and consistence of a soft jelly. The ventricles contained a little fluid in their posterior cornua, and the plexuses, particularly the left, had their glandules much enlarged.

In this case it would appear that determination to the head had been stealing on very silently, and the derangements in the digestive organs appear to have been sympathetic. The redundant secretion of urine and of bile is not at variance with this opinion, for though in some cases of cerebral disease, or of affections of the nervous system, secretion is partially or wholly suspended, there are others in which it is in excess. The state of the heart is perhaps a little explanatory of the sighing and dyspnoea which so often attend cerebral disease. If life had not been early terminated by a convulsive paroxysm, it is highly probable that hydrocephalus would have been developed.

Other instances of convulsive affections will be related in the second part.

Having glanced at the influence of the brain in the production of disease in the digestive organs, I might naturally be led to the consideration of the mind and of the nervous system, but I prefer adducing first some observations relating to the pancreas, spleen, and liver.

Diseases of the Pancreas.

The Pancreas is, perhaps, the least frequently diseased of any of the abdominal viscera; and when diseased, owing to its deep situation among the viscera, and the obscurity of its office, its affections are the most difficult of detection. Its functions are evidently concerned in the process of digestion, but it does not seem to be endowed with so high a degree of sensibility as other organs, and of course not so easily disturbed by sympathy. From its situation we certainly should expect that when under acute disease there would be pain in the back and in the epigastric region, but in the cases satisfactorily reported there does not appear to have been sufficient uniformity in the symptoms to enable us to rely upon them. Dr. Baillie states that he never saw but one case of abscess in this gland, and that patient did not complain of any fixed pain in the situation of the pancreas, but had considerable pain in different parts of the abdomen from spasmodic contractions of the intestines. There was sickness, and distension of the stomach, with a sense of weight after eating. The pancreas was not known to be diseased till after death. He states that he never saw one case in private practice in which there was satisfactory evidence of the pancreas' being diseased, and only one during the thirteen years he was connected with the hospital. Calculi, he says, are still rarer than inflammation and enlargement; he had not met with any instance of it. Dr. Pemberton justly observes, that the diagnosis in affections of the pancreas must depend very much on negative evidence—and, in obtaining this evidence, the patient's description alone must not be relied on. He must be placed in a favorable position, and a careful examination be made by the hand. Inflammation of this organ has terminated in suppuration, and a large abscess been found after death, without the indications having been clear. Not unfrequently there is considerable firmness of the gland which has been regarded as scirrhus, but it is not incompatible with sound structure, and should be distinguished from carcinoma, to

which this organ is liable. Mr. Abernethy, in his lectures, mentions a case of cancer.—The patient's countenance indicated visceral disease, and this expression will often materially assist not only in deciding whether disease be functional or organic, but in some respects will indicate the organ affected. The nature of the case alluded to was not ascertained till after the patient's death. When the pancreas began to ulcerate, it produced no effect but local pain. As the disease advanced the patient was constantly stooping forwards. The pain was aggravated after a rather plentiful meal. This gland has also been found scrofulous. Mr. Venables mentions a case of this kind.—The pancreas was hardened and tuberculated, and in some parts the substance when cut into was found to contain cheesy matter. The patient was hydrocephalic, and decidedly of a strumous habit.

I have adverted to the general character of the diseases of this organ because they are involved in obscurity, and the consideration of constitutional tendencies will always assist in arriving at correct conclusions in diagnosis. Happily its diseases are rare, but it is of importance, if possible, to detect them when they do exist, and to bear them in mind when investigating an equivocal and protracted case of abdominal derangement. Portal met with salivation as an attendant on induration of the pancreas. It has been found wanting, but this circumstance does not warrant us in supposing that it is redundant. There are many deficiencies to which the body is capable of adapting itself *ab initio*, to the loss of which there is not equal power of adaptation.

The pancreatic juice is said to contain a large quantity of highly azotized principles, and to aid in animalizing such vegetable food as does not contain azote.

Disease of the Spleen.

Disease in the spleen is not unfrequently connected with impaired digestive power, but its affections are not very difficult of discrimination, except in the early stage, when chronic splenitis may be mistaken for disease of the stomach.

It is frequently the seat of enlargement, which, though sometimes from diseased actions in this organ itself, perhaps, generally arises from disease in the liver. It does not become affected with acute inflammation so often as some other viscera, and is very rarely the seat of abscess. Its coats are often rendered opaque by chronic inflammation, and are frequently occupied to a greater or less extent with laminae of bone. Tuberles of various sizes are often found both on the surface and in its substance. Whether as cause or effect, its enlargement is often connected with that state of broken health, of impaired vascular power, that proceeds from chronic disease of the digestive organs, or affection of the heart; and passive haemorrhage, not only from the stomach and bowels, but from the gums, nose, and other parts, so far as my observation has extended, is often connected with splenic disorganization. I have not supposed that this tendency to haemorrhage has arisen from the disease in the spleen, but that both were dependent on the same morbid condition of the sanguiferous system. This organ will sometimes acquire a great augmentation of bulk in very young subjects. I took from the body of an infant, a few months old, a spleen that weighed half a pound, and have seen it extending nearly to the pelvis in children of very tender years. In judging of the enlargements of this viscus, it is necessary to bear in mind that it may be forced below the edge of the ribs by disease in the corresponding thoracic viscera or cavity.

Dr. Baillie was of opinion that enlargements of the spleen more frequently subside when connected with ague, than under other circumstances. He adds, "when enlargement has taken place independently of this cause, it hardly ever subsides of itself, or is materially diminished by medicine. Mercury, I think, seldom produces any good effect. I have seen more advantage from a seton than from any thing else, but I do not recollect a single instance in which it has been reduced to nearly its natural size." From having witnessed the efficacy of a seton in controlling morbid actions in other parts, I was led to its adoption in the following case of

enlargement of the spleen long before the publication of the Doctor's opinion, and the result was more satisfactory than happened in his experience. The case, however, is related more especially with a view to the constitutional affections attendant on the disease, and to the effects of counter-irritation as unintentionally produced by one of the remedies employed. I have seen mercury tried in other cases, as well as this, without any benefit; and indeed this we should expect from the impaired state of arterial action.

CASE.

On the 17th of August, 1814, I was requested to visit a young female friend, seventeen years of age, who for many months had been affected with symptoms which were supposed to indicate dyspepsia. There had been pain in the region of the stomach, especially after eating, flatulence, swelling of the legs, coldness of the feet, and general langour. There was some tenderness in the left hypochondrium, but no fulness was at this time observable. Though she was regular as to the menstrual periods, she observed that the secretion was of a very pale colour.

Some bitter infusion was directed to be taken three times a day, and opening pills every other night; and a week afterwards the *mistura ferri composita* was substituted for the bitters. She became rather better, and at the expiration of a fortnight went to the coast, where she used the warm bath at 93° every other day. Within the first fortnight there was no amendment, and she had occasion to consult a medical practitioner at Margate. Whilst there, her attendant noticed some enlargement in the left hypochondrium, and from the projection as well as tenderness, the patient herself had the sensation of a small parcel between the elbow and side. The pain also had augmented, and though varying in degree was never wholly absent.

On the 29th of September she returned home, and on the following day I carefully examined the side. She complained most of pain and soreness at the greatest convexity of the ribs on the left side, and a large substance, evidently

the spleen, could be distinctly traced extending about two inches below the ribs. Pressure on it occasioned acute pain, which extended under the ribs into the hypochondrium. It was not much increased by a deep inspiration, nor was there any difficulty of breathing, though palpitation of the heart was constant and distressing. The general health was somewhat improved.

The plan of treatment recommended by Dr. Bree, consisting of a combination of antimony, aloes, and neutral salts, conjoined with bitters, was adopted, and the antimonial ointment was rubbed on the side till its full effect was produced. By the end of the month the palpitation had subsided, the pain in the side was rather better, and the amendment of general health considerable. The same plan was pursued with evident advantage till the middle of November, when, without any evident cause, the symptoms became more acute. Ten leeches were applied to the side, and saline medicines with antimonials administered. She was afterwards cupped. The stools were yellow and jelly-like. Under this treatment the acute symptoms were soon allayed, but for several weeks the disease remained stationary, and the functions of the uterus were wholly suspended.

Finding other means fail, it was resolved to try the effects of a gentle mercurial course, for which purpose she took the blue pill twice a day in doses gradually augmented to eight grains, but the mouth did not become sore till, in addition to the pills, the side had been rubbed for some nights with mercurial ointment conjoined with camphor. When she became under the influence of mercury the pain and tenderness decreased, but there was no apparent diminution in the bulk. When the ptialism had subsided, however, it appeared that the general health also was better.

No long time elapsed before she was seized with sickness and an increase of pain, and to give mercury a full trial, a recurrence to the means that had appeared to a certain extent useful was advised. This was effected adequately; indeed, having persevered, some days after the affection of the mouth commenced, she was rather violently salivated.

After being kept up for some time in a gentle manner, and then allowed to cease, no alteration was perceptible except in the tumefaction's being more prominent anteriorly. The bulk was as great as ever, and the pain and soreness were undiminished.

In March she was seen by an eminent surgeon, who, as usual, recommended attention to the state of the bowels, advised the pilula hydrargyri every other night, and decoction of sarsaparilla twice a day, with warm fomentations to the side. This plan proved as unavailing as others, and several months elapsed without much being attempted. The pain was severe and the part tender; the bowels were torpid, and the supine position could not be endured.

In September she was seen by another able anatomist and surgeon, who imputed the anomalous symptoms to suspended uterine action. This opinion, however, was drawn too hastily, for the derangements which had taken place in the functions of the uterus were clearly subsequent to other affections. The plan of treatment proposed was not objectionable. It consisted of five grains of the blue pill every night, and twice a day a dram of vinum ferri, and seven grains of subcarbonate of ammonia in an ounce of bitter infusion. This course was regularly pursued for three weeks, when pain came on in the pelvic viscera, extending down the thighs.

The lady resided in the country, and as I at this time had removed into town, my visits were only occasional. Having no suspicion of the cause of this pain, she continued the medicine, and in a few days her condition was deeply distressing. She had profuse leucorrhœa, the discharge being extremely offensive. The pain in the genital organs and rectum was extremely acute, especially when attempting to void urine or feces. The perineum and adjacent parts were in a state of high erysipelatous inflammation, in some places being livid; and it was evident from the symptoms that the same action was going on in the vagina and rectum. The pulse was 140, and small. The countenance was distressed, and the skin hot. It was directed that fomentations and poultices should be applied to the part, that occasional doses of

sulphate of magnesia should be given in gruel to keep the bowels open, and other saline medicine taken frequently. On the following day the lividness had decreased, but the other symptoms were as acute as before. The pain in voiding urine and feces was almost insupportable. The same plan was continued, adding after some days a little decoction of bark, and in about a fortnight she had recovered from this affection. From this time she continued to take the salts in gruel occasionally. The old disease progressively diminished, and by the beginning of December she considered herself nearly exempt from it. She could take exercise freely, and suffered very slight inconvenience from the side. The great improvement derived from the setting up of this new disease, induced me to hope that by seizing the advantage gained, and instituting a means of permanent counter-irritation, in a manner the least incommodeing to the patient, I might carry on the process of restoration, if it should appear requisite.

Early in the following year I found that we were again stationary; indeed, the patient became more the subject of palpitation, which was violent as well as frequent. She felt some uneasiness again in the side, and though the bulk was greatly lessened, the enlargement was still perceptible. A seton was therefore inserted just upon the edge of the ribs. No inconvenience resulted from the insertion except that the small vessels continued to bleed from mid-day till the middle of the night, when, growing faint from the loss of blood, I was called up. Pressure and cold applications immediately arrested the haemorrhage.

As soon as suppuration was fairly established, it was evident that the disease was again declining. The palpitation subsided, and the pain in the tumefied spleen ceased. Nothing was done in the way of medicine, except by taking an occasional dose of opening pills. The progress of amendment was slow, but it was steady; and in the course of a few months my young friend regained a measure of health that had long been unknown to her. The functions of the uterus, and of all the other organs, were performed with regularity;

indeed she appeared well. The seton, however, was continued a few months longer. Since this period, with very slight exceptions, this young lady has enjoyed excellent health.

Perhaps there is no circumstance more really interesting in pathology as well as physiology, than visceral sympathy, and the case just related again places the subject before us in an important light. Its importance in practice will be an apology for my repeating that when the functions of several viscera are deranged, it becomes of the utmost importance to ascertain what is the primary seat of mischief. A secondary affection may be more prominent, but measures directed to this would be quite unavailing if irritation be kept up by morbid actions in some other viscus. In employing counter-irritation we imitate the principle of sympathy, and the disease we set up should have some reference, in its degree and duration, to that we attempt to control.

Dyspepsia from disease of the Liver.

The liver is the organ to which it is now most common to impute dyspeptic affections. Its magnitude, connected with its relation to other organs, and to the mind, perhaps may impart to it a preponderance in the pathology of the chylopoietic system; but when we consider that chylification may be effected without bile, as appears to be proved by recent experiments, we cannot attach greater importance to that secretion than to others concerned in the same process. Nevertheless, when we regard the use of bile as contributing to animalize and promote the solubility of some articles of food, to counteract putrefaction, and to stimulate the intestinal muscles, as well as to other purposes, we cannot fail to admit the importance of its being supplied of a healthy quality and in due proportion. Derangements in the functions of the liver may be characterized by a deficiency or redundancy of bile, or by its being of a morbid quality.

The ill effects on the process of digestion may arise from either of these conditions, or from obstruction in the biliary ducts. When these obstructions arise suddenly, as in cases

of hepatic or cystic calculi, they usually occasion acute and very painful symptoms; but they sometimes occur gradually, and by partially if not wholly intercepting the flow of bile, not only is the process of digestion impeded, but the liver itself becomes oppressed by the retention of its own secretion, and the gall-bladder dilated to an enormous extent. I shall presently relate a case of obstruction occurring from a cause exterior to the ducts.

Dyspeptic symptoms, too, arise from the existence of biliary concretions in the gall-bladder, either from irritation or from the condition of the bile on which their formation depended. It must be admitted, however, that the gall-bladder has sometimes been found full of calculi, when there had existed no indication of them during life.

The functions of the liver are liable to be deranged by sympathy with other abdominal organs, and with the urinary and genital organs. Pain in any part of the body, the irritation of teething, and even toothach, may induce derangements in this viscus, in common with those of other organs; and it involves almost all other parts in the circle of its own influence.

It is particularly liable to be affected by those diseases of the heart which cause an impediment to the circulation of the blood returned to that viscus by the inferior cava; and as the venous currents from all the abdominal viscera form a conflux, they, of course, participate more or less with the liver, in the mischief of surcharge from the cause in question.

All the internal organs sympathize with the skin, for cutaneous irritation has undoubtedly an influence on their functions. It is probable, however, that they chiefly suffer under the various circumstances of cutaneous transpiration. Secretion cannot be materially checked on the surface of the body without its causing some vascular plethora, or throwing upon other organs an excess of duty incompatible with their healthy state. The liver is frequently implicated in morbid actions under these circumstances. But, perhaps, no cause so frequently, so suddenly, and so powerfully, deranges the functions of the liver as mental impressions. Sometimes the

secretion is checked, the stools being white or ash-coloured, and an attack of subacute hepatitis may supervene. Sometimes the excretory ducts seem to be spasmically contracted, and then jaundice may ensue. I recollect a remarkable example of this in the person of a medical man, whose scruples and apprehensions were so much alive whenever he had a formidable case under his care, that he almost invariably became jaundiced. Sometimes the secretion is redundant, and diarrhoea or even cholera has resulted.

These, it is true, are the stronger lines of the picture, but they tend to demonstrate the influence of the mind over the hepatic functions; and to show the mischief which results from strong emotions, from continued anxiety, or from inordinate mental exertions.

The influence of the nervous system I purposely defer till I shall have illustrated these observations by some of the facts from which they are drawn. I shall pass over the more particular consideration of mere derangement of function, and shall only adduce such cases of chronic disease as elucidate the subject of disordered function, or required the most persevering and cautious management of the assimilative powers.

CASE 1.

Enlargement of the liver producing dropsy, in a strumous habit.

Several times in the year 1821 I was consulted respecting a delicate lass whose symptoms were cough, quickness of respiration but with ability to expand the chest, fever, slight pain in the right side, tumid and tense abdomen, and light-coloured feces. Occasionally a tinge of yellowness was observable on the skin. The limbs were considerably wasted, and not unfrequently a hectic flush glowed on the cheeks. These symptoms were repeatedly relieved by taking small doses of hydrargyrus cum creta with saline medicines; and when the cough and febrile symptoms had a little subsided, she was considerably invigorated by a residence of a few months at the sea side. Her parents were unduly anxious

about her education, and she was sent to school, but had not been long there before she had a recurrence of nearly the old symptoms. There were regular evening exacerbations of fever, the cough was exceedingly troublesome, and the night perspirations profuse. The abdomen was large. There was very slight tenderness in the right hypochondrium, with some increase of bulk in the liver. The lymphatic glands were enlarged, and there was reason to infer that the mesenteric were so likewise, and fears were entertained that the lungs might be tuberculated. The countenance was cheerful, but it was that vivacity which gives peculiar interest to the expression of the strumous female.

R Succ: Hyosc:

Pil. Aloes comp. $\frac{aa}{gr. ij}$ M. ft.

pil. ij; omni nocte sumendæ.

Every other night three grains of hydrargyrus cum creta were added; and three times a day she took a saline draught with one dram of tincture of calombo. The diet consisted of milk and farinaceous articles.

After pursuing this plan for a fortnight she was decidedly better. The colour of the dejections was darker, the belly softer, the cough was much less troublesome, and the perspirations were abating. At the expiration of a few weeks more she was tolerably comfortable, joined her friends on the coast, and soon appeared quite well.

No long time elapsed, however, before the functions of the digestive organs again became deranged, and the derangement was accompanied with the usual sympathetic affections. The plans pursued did not bear a due reference to her delicate and strumous habit. Calomel was given with too much freedom, and she was long in considerable jeopardy. After many weeks had elapsed, a rest from medicine was solicited, and she gradually regained a comparative state of health; so much so, at least, that her sanguine parents again sent her to school.

Though watched over with the most solicitous kindness by her excellent preceptress, yet she was still incapable of

enduring mental application. An accession of her former affections crept upon her most insidiously. A neighbouring medical man was consulted, who, disregarding her delicate and susceptible habit, prescribed powerful doses of calomel and scammony. At the expiration of a fortnight she was taken home. The abdomen was progressively augmenting in size, and at the end of a month she was found to be ascitic. She was in this state when I first saw her, and an excellent physician had been consulted. The abdomen was very large, and fluctuation could be distinctly felt; but by relaxing the abdomen as much as possible, the liver could be discovered projecting considerably beyond the ribs, and tender. The bowels were open, but the dejections were light-coloured, and often appeared as if they were fermenting. Her limbs wasted, but she was tolerably free from cough, and the appetite was moderately good.

As she had already taken mercury too freely, this medicine was limited to three grains of the hydrargyrus cum creta every other night, (sometimes omitting it for a week,) and she took a dose of rhubarb and magnesia every second or third day. She was directed to take dilute nitric acid with a dram of tincture of calombo three times a day, in two ounces of a strong decoction of taraxacum. As much horse exercise as possible was enjoined, and when from badness of weather she was unable to get out, exercise within doors by means of the rocking or scotch horse was regularly pursued. The diet was nutritive but unstimulating, and her clothing warm, and friction of the limbs and body was daily employed. Her friends resided in the country, therefore she derived every advantage as to atmosphere. For many weeks a very even balance was maintained, but nothing could be more satisfactory than the result. Feeling confidence in the plan laid down, the friends of the young lady pursued it vigorously, and at length the abdomen became perceptibly softer, and by measurement the circumference was lessened. Some months elapsed before she could be reported quite well, but for the last eighteen months she has enjoyed good health, and for a year has

been able to pursue the complicated system of female education with ease and success.

This case, as well as the following, tend to show how much may be effected in formidable cases of functional derangement of the liver; and even of organic increase, with the consequences that may have resulted, by a steady perseverance in an unirritating plan of treatment. At the same time we may observe, that those measures which disturb and ruffle the constitution, not only induce new and troublesome affections, but aggravate that for whose removal they were suggested.

I shall endeavour to avoid prolixity in the detail of the following case, but it presented so many interesting circumstances, and was so immediately under my own eye, that it will necessarily occupy some extent of description. General principles are most interesting to the experienced practitioner, but the student must go through the drudgery of observing and investigating insulated facts.—

CASE 2.

Enlargement of liver from hooping cough.

About the middle of the year 1816, two of my own children were affected with hooping cough, and one of them died.* The elder child, the subject of the following details, five years and a half old, was more slightly affected than

* I may remark, though it does not immediately bear on the subject before me, that on examining this little girl after death, not only was there inflammation of the mucous membrane of the bronchia accompanied with hydrothorax, but also extensive inflammation of the peritoneal coat of the liver, and ascites. The gall-bladder was filled with bile the consistence of jelly, and of a greenish colour. This jelly-like secretion is sometimes attributed to the muciparous glands, but this case gives it an hepatic origin. In many cases of hooping cough, when the symptoms had not been so violent that the affection of the liver could be imputed to obstructed pulmonary circulation, it has become inflamed. In violent attacks of the disease I scarcely recollect an instance in which this organ did not severely participate.

his sister, and had struggled through its characteristic symptoms, but he continued to be troubled with cough, and, during the month of November this symptom was peculiarly annoying to him. In the early part of the month he was attacked with diarrhoea, and the discharge of watery stools was so excessive as to excite serious apprehensions respecting the issue. He recovered, however, and went for a week into the country, where he gained a degree of bodily strength. Before his return he took cold which reproduced cough and fever, and in a few days symptoms of acute hepatitis arose. Three ounces of blood were drawn from the arm, a blister was applied, and saline aperients were administered. Under this treatment the acute symptoms subsided, but he had occasional cough, hurried respiration, and a very quick and often irregular pulse. My excellent and intelligent friend Dr. Uwins kindly visited him, and prescribed a combination of calomel, opium, and digitalis—a quarter of a grain of each every six hours. After having taken this medicine for a few days, a quarter of a grain of succus cicutæ was substituted for the opium. He took a dose in the evening, and in the course of the night the action of the heart was greatly disturbed. Sometimes the pulse was scarcely perceptible, at others it beat more firmly, but was intermittent, and occasionally he fell into the most appalling syncope. This was probably the effect of the digitalis and hemlock. On the following day he was moderately cheerful, yet the pulse fluctuated in a most extraordinary manner, and immediately on falling into a slumber he perspired most profusely. On the 2d of December, the second day after taking the hemlock, he appeared to have recovered from the effects of the narcotic, but his respiration was greatly hurried, and the pulse was extremely quick and fluttering.

Two grains of calomel were given him, and afterwards epsom salts with infusion of senna, so that in the course of the day and night his bowels were freely opened—the dejections being loose and bilious, and the urine scanty. The pulse was 140, and sometimes irregular; yet he was

cheerful, and ate some gruel and milk with biscuits. It appeared on the 5th that he had been much relieved by the aperient medicine. He was seen by Dr. Farre, as well as by the friend already named, and it was agreed that the cathartic mixture should be so continued as to keep the bowels freely in action. Within the next ten days he twice had a return of pain in the liver, with other evidence of acute hepatitis, which subsided under the use of leeches and neutral salts.

On the 15th it was directed that he should take five grains of the hydrargyrus cum creta every other night for a week, taking some mild aperient in the interval, and that at the expiration of that time he should go into the country and take mineral acid. After taking the mercurial twice he was again affected with violent pain in the right hypochondrium, extending to the epigastric region, and accompanied with soreness. The motions were of a yellow colour, and in their consistence resembled jelly. The pulse was seldom less than 140, and sometimes it exceeded that number. The tongue was furred, the eyes were surrounded with a livid circle, and the urine was yellow. The diet consisted of farinaceous articles, and his beverage of water.

During the last attack I gave him a dram of castor oil every six hours, with three grains of potassæ nitras. At the expiration of twelve hours there had been no alvine excretion, and he seemed distressed, being unable to exert the abdominal muscles in the effort of expulsion, on account of the pain it excited in the side. An enema produced plentiful evacuation, and he was much relieved. He continued to take the castor oil emulsion twice or three times a day, and daily improved in health. By the 26th the pulse was reduced to 100. The pain and soreness of the right hypochondrium were removed, the stools were yellow, and the appetite was good; but he was only allowed milk, gruel, light puddings, bread, or other articles of a similar nature. He went into the country, and soon afterwards was allowed a little animal food. His bowels were kept open by mild aperients, and he took ten drops of dilute

nitric acid twice a day. At the expiration of a week I found him looking better and free from pain, but it was now discovered that the liver was so much enlarged as to cause a projection of the ribs.

At the beginning of February he returned to town greatly improved in general health; but his liver was very large, extending to the umbilicus, and occasioning great bulging of the ribs. It felt considerably indurated, but was not very tender on pressure. During the month of February he took the dilute nitrous acid twice a day, and as the hepatic disease was now in an indolent form two grains of calomel were taken twice a week. Every night during March a scruple of strong mercurial ointment was rubbed on the side, and his bowels were kept open by means of epsom salts and senna. He now took the mercurial every night in a much smaller dose, occasionally omitting it to avoid the excitation of acute symptoms.

About this time he was kindly visited by Mr. Abernethy and Dr. Farre. The former denominated it "a bad case," and the latter thought that the symptoms indicated disorganization of the liver as well as enlargement. It was agreed that he should take four grains of the pilula hydrargyri every other night, and that his diet should consist of three meals a day, each meal consisting of four ounces of good alimentary matter; and that his bowels should be kept open, without purging, by means of epsom salts or lenitive electuary. He went into the country in the month of March, putting this plan into strict operation; but at the expiration of a fortnight it was announced to me that the pain in the liver had returned.

After taking saline aperients for a few days, and abstaining from mercury and from animal food, the pain subsided. He was directed to take an ounce and half of mucilage of iceland moss twice a day, and did not renew the pills till the 20th.

In the treatment of these cases the utmost attention must be directed to acute symptoms, which are very liable to arise during the administration of mercury. The principle to be held in view is the exhibition of as much blue pill, or

other mild form of mercury, as the patient can bear without irritation, immediately desisting if acute symptoms arise. Keeping this principle in sight, on the 20th, when all symptoms of excitement had been allayed for some days, the child began to take two grains of the blue pill every other night.

On the 27th he was again brought home, under the appearance of his daily becoming worse. His fever was considerable. Occasionally his countenance presented a death-like paleness, with a somewhat livid hue. His gums were slightly affected by the mercury, his appetite was impaired, and his limbs wasted very rapidly. The state of the bowels was irregular and respiration hurried. He often complained of headache. The pupils were dilated, and he seemed quite incapable of mental exercises ; indeed, he appeared scarcely capable of sitting up without supporting his head on his hand. The bulk of the liver did not appear to have increased ; but the increasing failure of strength, accompanied with symptoms of cerebral fulness, led me to apprehend hydrocephalus.

I was now confirmed in an opinion, which for some time had been entertained, that the diet had been too scanty, and the periods too distant. It was therefore directed, that at six o'clock A. M. he should take half a pint of new milk ; that at nine he should breakfast on an egg and milk with some bread ; that at one he should dine on the meat of a young animal, (as veal or lamb,) or on rabbit or chicken ; take some milk again at five, and some gruel and milk for supper at eight.

As medicine, he was directed to take ten grains of the extract of taraxacum in mint water, or decoction of sarsaparilla, with fifteen drops of dilute nitrous acid, three times a day ; and as I was convinced that he could not bear mercury internally, the nitro-muriatic acid bath was tried. That it might be used effectually, a deep narrow tub was obtained for the purpose. It was first used in the evening of the 30th of April. He seemed to enjoy it, and passed a good night. It was repeated five or six times every week. The tense abdomen was daily rubbed with camphorated oil, and

every other day with a scruple of mercurial ointment. During the three or four days immediately following the first bath the bowels were relaxed, and he voided much more urine than he had for some time; but afterwards the bowels settled into a moderately regular state, though it was occasionally requisite to give him a gentle aperient. Through the first week of adopting this plan he was immediately under my own eye, and afterwards the effects of the remedies were very closely watched; nevertheless, though the bath not unfrequently produced considerable irritation and tingling in the skin of the legs quite to the knees, yet I never could detect any specific influence on hepatic secretion. It appeared useful, however, as a bath, and as a counter-irritant; and in a few other cases in which I have employed it, its utility seemed to be confined to these effects. At the expiration of a week after commencing the bath, he was placed with his mamma in lodgings at Stockwell, where I saw him almost every day. The bath was continued about three weeks, and then water was substituted for the acid. At the expiration of a month he was evidently much improved. His countenance, by the decrease of pallidness, and of lividness in the circumference of the eyes, indicated an improved state of circulation. He had no pain in the liver or stomach, and was more lively, but his appetite still was defective, and his tongue furred.

During the preceding three months he had taken no mercury, unless it were an occasional small dose, and he had so uniformly become worse after repeating this mineral a few times, that although it seemed almost essential to the removal of the increased bulk of the liver, yet its renewal was somewhat dreaded. The seizing of the fairest opportunity, and the adaptation of the dose, constitute the chief points in the administration of mercury; and in August his general health was so much improved, and he was so free from evidence of active disease, that he was directed to take a grain and half of blue pill at bed-time for four successive nights, and then to omit one of two; and also to take fifteen drops of nitro-muriatic acid twice a day.

At the close of the month he came again into London. His general health was good and his appetite keen; but the liver was extremely large, occasioning very considerable prominence of the abdomen and of the right side. He pursued the same plan of medical and dietetic treatment through the months of September, October, and November; and from a memorandum made on the 10th of December, it appears that his liver had become much less, and that its secretions were healthy. His general health was very good, and he took no medicine except two grains of the pilula hydrargyri every third or fourth night.

Through the early months of 1819, he took two grains of blue pill three times a week, and in April he recommenced the taraxacum, taking a few ounces of strong decoction of the recent roots twice a day; but though persevered in for three months, it did not appear to have effected any real good. His breakfast and supper consisted of bread and milk, and his dinner chiefly of animal food. He spent May and June in Shropshire, where exercise on horseback was very serviceable; but the bulk of the liver was still formidable.

As the head had been repeatedly threatened, and the general health demanding the utmost relaxation, his studies had been nearly suspended; but after the midsummer vacation he went to a preparatory school at Brixton, where the utmost attention was paid to him. He took two grains of the pilula hydrargyri steadily every other night, and in the day either the nitro-muriatic acid or carbonate of iron. For twelve months there was scarcely any intermission in the plan, but during the first two or three months both his confinement and mental exercises were very limited, and afterwards the greatest care was taken that they should not be irksome. He grew in stature and increased in strength and in the size of his limbs. He was always cheerful, and had scarcely a day's indisposition through the whole year, at the close of which it was evident that the viscus was much reduced. As corroborative evidence of the advantage which had now been gained, I

might quote from my minutes the opinion of an able and eminent physician who saw him a second time after the lapse of a year and half.—“Having a somewhat analogous case under his care, the doctor examined him carefully, and found the liver scarcely extending beyond the edge of the ribs. He expressed himself greatly astonished at the change that had taken place since he last examined the youth, and said he had never witnessed so encouraging an instance of the management of enlargement of the liver.”

Still we felt it necessary to regard the injunction, “be not weary in well doing,” and therefore from midsummer 1820, to the same period of 1821, the mercurial pill, which had been cautiously increased to three grains, was taken though less frequently. He appeared then to be quite free from hepatic disease. Taking his pill had grown into a rather pleasant habit, and for some months he occasionally requested one, a favor with which I thought it useful to comply, as it was not solicited oftener than once a week or fortnight. He continues to enjoy very good health, with unimpaired mental powers.

In this case we have first the connexion of hepatic disease with hooping cough, a circumstance of very common occurrence. We have enlargement from chronic inflammation ensuing upon acute hepatitis. We have, at first, a highly excitable state of liver, and of the constitution generally, not allowing of the use of mercury. A state of excitability and weakness, exposing the patient to irregular distribution of blood, and threatening effusion in the head from congestion. We have then amended health, and consequently augmented strength, and a more indolent state of the enlarged viscus.—Mercury now admissible, but requiring at first great watchfulness. Ultimately we have the satisfaction of effecting, by a slow but persevering process, restoration to health, of which no hope could be entertained by more violent measures.

When the liver is in a state of subacute inflammation, I have so often seen mercury develop the symptoms of acute hepatitis, that I never resort to it except with great

circumspection; and where there is enlargement of the liver, for which mercury might be requisite, it should be withheld the moment these symptoms occur, substituting the most soothing measures, till they have subsided. In this excitable state of the liver, secretion will be carried on much better without mercury. In the case just related, at its early stage, there was either a suspension of secretion, or the motions were loaded with a yellow jelly-like substance, which I was led to consider as a morbid secretion from the liver, in consequence of the gall-bladder in the sister having been distended with bile of the same consistence though of a greenish colour. The liver acted better, and consequently with less constitutional disturbance, under the use of the oily emulsion than from any other medicine. In tropical climates where disorganization takes place with extraordinary rapidity, large doses of calomel have been found highly useful in acute hepatitis. It must not be inferred that these strictures on the exhibition of calomel in acute hepatitis apply to other visceral inflammations, for in many cases of pneumonia, where hepatization is liable to happen from effused lymph, and in some other forms of adhesive inflammation, the exciting of mercurial influence has a most salutary effect in counteracting the adhesive process. Dr. Pemberton has given much useful caution on the subject of mercury, in his excellent epitome of diseases of the digestive organs.

I shall only add an observation relating to the nitro-muriatic acid. Though I continue to employ this acid in preference to the nitric alone, in the various affections that seem to require this mineral tonic, yet I have never witnessed any effect that would lead me to suppose the chlorine administered internally, or applied externally, possessed a specific power of influencing hepatic secretion. The contrary opinion, I admit, has been maintained by practitioners of far more experience and discrimination than myself, but I feel it incumbent upon me to state the result of my own observations. I have never tried it in the form of vapour, as recommended by Mr. Wallace. The advocates of this medicine allow that in many cases it seems inert, but

information I think is yet wanting to enable the practitioner to make a distinction.

In the whole circle of pathological inquiry, a more important subject cannot present itself for investigation than the various conditions of the liver. Viewed in relation to the diseased organ itself, the consideration is vastly momentous, and it affords great advantage in the treatment to detect it early, and to ascertain its nature. In the case just related, there was simple enlargement of bulk without disorganization, and this is the usual form under which it occurs in young persons. It may, however, be associated with such alterations of structure as to allow of no hope of restoration, and under such circumstances the adoption of painful measures is not only useless, but cruel: they may increase the patient's sufferings and accelerate the fatal issue.

Viewed in relation to the numerous sympathetic affections of which the liver is the parent, a powerful motive is supplied to the exercise of patient examination. This motive is strengthened by the fact of the insidious and masked forms under which hepatic derangements occur.

CASE 3.

In the year 1823 I was requested to see a young lass about eight years of age. She had complained of cough and dyspnoea, and when I saw her the symptoms certainly were so indicative of pneumonia, that the practitioner might be in great danger of pronouncing it a case of that description without any inquiry. On examining the abdomen, however, the evidence of acute hepatic became unequivocal, though she had not previously mentioned pain in the side. She was immediately bled, and the blood soon put on a sизy appearance, which may almost be regarded as diagnostic of hepatic inflammation. The lungs, I believe, were wholly unaffected.

The following case will put this subject in a still clearer light. It relates chiefly to disease in the heart, but it also

shows the effects which lesions in the thoracic cavity have on the abdominal viscera.

CASE 4.

Hepatic affection from disease of the heart.

Towards the close of October, 1824, I was requested to see a gentleman about seventy years of age. He had enjoyed good health, had been remarkably active, had eaten heartily, and drank his pint of porter twice a day with great zest. Within the preceding year he had suffered occasional attacks of colic, and his bowels have had a tendency to constipation. I was occasionally called to see him not only under these attacks of colic, but once on account of a slight accident; and on all occasions I observed a remarkably rapid pulse, with some inequality; but he had no other symptom of diseased heart, and appeared quite surprised at my being so inquisitive on the subject. My attendances were solicited only under special circumstances of short duration, and as my patient was an active man to whom confinement was irksome, he was relieved from restraint as soon as possible. After an attendance of this kind in 1824, he went to the coast, spent some weeks there, and had been again at home for a considerable time before October. Whilst absent he had been greatly annoyed from flatulence, accompanied with a sense of fulness in the abdomen. He became rather better, and things went on pretty quietly till about a week before I was consulted, when his respiration became difficult, and in the night as well as day he had frequent attacks of *deliquium animi* of short continuance. The pulse was about 140, and very irregular. He referred principally to a sense of fulness of the abdomen, with occasional pain in various parts of this cavity. The tongue was but little furred, the appetite was moderate, the alvine excretions were pale, and the urine was scanty and high coloured. I laid him on his back to examine the abdomen, and could distinctly trace great enlargement of the liver. The family had now become

justly alive to the patient's condition, and wished that one of our most eminent city physicians should be associated with me in the treatment. We held a consultation on the 26th of October, when it was agreed that he should take two grains of pilula hydrargyri, and an equal quantity of pilula scillæ, and a lightly diuretic mixture thrice daily. When we met again on the 4th of November, he informed us that the medicine nauseated him, and he thought rendered his respiration more difficult. The pulse was still 140 and somewhat irregular, the urine still deficient, and the abdomen tumid. Taraxacum was now directed for him in the infusion of orange-peel, to be taken with the pills, and he was supplied with an antispasmodic mixture consisting of camphor mixture and vitriolic æther, of which he took a dose when the dyspncea was urgent. It was also agreed to use the ointment of tartarized antimony.

From this time till the 14th his symptoms a little fluctuated. The ointment produced a full crop of eruption. He passed some nights with comfort, but in the course of others he had frequent attacks of orthopnœa: occasionally in the day he was cheerful and comfortable. The bowels were open, but the urine was scanty. The night of the 15th was peculiarly distressing to him, owing to the frequency of the paroxysms. The pulse continued to be 140, very small and irregular; still he informed me that excepting the occasional sense of suffocation, (which, however, was a most painful exception,) he felt well. He had naturally a settled florid complexion, but sometimes a slight leaden hue was perceptibly on the lips. The posture in which he lay most comfortable was supine. At this time the quantity of urine had greatly increased.

The night of the 16th was even more distressing to him than the preceding, the attacks of orthopnœa being more frequent, and he seemed very weak and dejected in the morning. The pulse was almost imperceptible and extremely rapid.

He was directed to continue the medicine as before, and to take five grains of pilula saponis cum opio at bed time.

The following morning he informed me that he had passed a most delightful night, not having a single attack; the pulse remained the same, but he described himself as being comfortable. He was desired to repeat the opiate every night, and to continue the mixture.

On the 20th diarrhoea came on, which was corrected by a cretaceous mixture. His respiration for a week remained somewhat better, but the difficulty then returned, and resisted all the measures, both external and internal, employed. Purgatives, antispasmodics, opiates, and medicines of various kinds, as well as external irritants, had been successively employed. Digitalis had also been given, but with timidity.

By the 8th of December the paroxysms were perhaps somewhat lessened both in violence and frequency, and yet it is scarcely possible to conceive of a state much more distressing than that of this gentleman. The least excitement or emotion of mind produced a paroxysm, but it often occurred without any apparent excitation. As he sat comfortably before the fire, or as he walked gently across the room, the attack would commence, and for two or three minutes he realized all the agony of a suffocating man. He might truly be said to labour for breath, with his shoulders elevated, and countenance deeply distressed. The pulse during the paroxysm was little, if at all, altered.

On this day a second physician, an able and eminent pathologist, was called in for consultation. We agreed that organic disease of the heart existed, that it was the cause of the paroxysms, and that it was irremediable. It was also evident that there existed a state of congestion of the liver, from the impediment to the transmission of blood through the heart. Still it was hoped that the sufferings of the patient would admit of alleviation, but by what means it was difficult to say, as so many had been tried without success. The second physician objected to digitalis on account of the pause in the action of the heart; he therefore suggested some pilula scilleæ with half a grain of calomel, and a saline draught three times a day. This plan, however,

afforded no more benefit than others. It was persevered in for some time, and then other means were resorted to. His legs became much swollen, and all the other symptoms, though varying slightly in their severity, continued to harass the patient.

In this way things went on till the 8th of January, when I resolved to try the infusion of digitalis. Although the existence of organic disease of the heart was unquestionable, it seemed probable that effusion had taken place into the thorax or pericardium, and increased the impediment to the transmission of blood through the heart, and to the pulmonary circulation. He commenced with two drams of the infusion every six hours, taking four grains of extract of hemlock and one of opium every night, adding two grains of calomel every other night. From this time he became much more comfortable. Within a few days the hurried and tremulous action of the heart ceased, and the pulse generally only beat 60 in the minute, though very irregular both in force and frequency. On the 17th and 18th he was much worse, but after an active purge of calomel and scammony, and the addition of half a dram of sulphuric æther to the draught, he was again relieved, and continued to amend. By the 20th he voided urine copiously, his countenance was much more cheerful, and his legs greatly reduced. On the 26th his head became painful and giddy and his mind confused. His stomach, too, was very irritable, but the bowels were freely open. The affection of the head evidently arose from the pulmonary affection, and the nausea was apparently occasioned by the cerebral disturbance. Eight leeches were applied to the temples, and a dram of sulphate of magnesia given three times a day with infusion of roses.

On the 31st he was better, although very feeble, and was now greatly emaciated. His respiration, however, continued free; and it was remarkable, that if from exertion it became a little difficult, he was immediately relieved by lying down. It was observable too now that the liver was greatly reduced, and the abdominal parieties were flaccid.

Continuing pretty nearly the same plan as to his night medicines, a light tonic was substituted for his draughts. At the expiration of a week he could sit up much better, could walk with greater celerity, and desired amusement. The pulse was 60, and irregular; the respiration free—the nights passed comfortably—appetite good—and countenance full of vivacity and gratitude. On the 2nd of March the following memorandum is recorded: “Since the last report, Mr. D. has continued very comfortable. He has not experienced one paroxysm of dyspnoea, his nights pass comfortably, and his appetite is good. On using exercise about the room he feels more firm, but cannot bear much exertion because it still produces distress of breathing. With this exception respiration is perfectly free. He can lie down in any position, and his countenance is cheerful and healthy. The urinary secretion is copious. The pulse was very irregular, and had a distinct intermission every third or fourth beat, till within the last week, since which the action has been more regular and the intermission much less. He has pursued the same plan, except taking his medicine only twice a day during the last fortnight. He is now to omit the night pills, and a gentle aperient is added to the tonic medicine.”

Early in April the patient found his respiration becoming much worse. His pulse again presented the double action, so that it beat 130 or 140 in the minute. His nights too were rather distressing from his being seized at intervals with a sense of oppression, which compelled him to get up. He made less water than before, and complained of a sense of fulness of the abdomen, with slight uneasiness at times in the right side. Under these circumstances I judged it proper to recur to the composing pill, the infusion of digitalis, and occasional purgatives. The good effect was decisive. His nights at once became more easy. After a few days his pulse sunk to 64 with intermissions, his respiration was free, and the abdomen became soft. By the 26th he was so well that all medicine was relinquished, except an occasional dose of calomel and cathartic extract. In the middle of June he found his respiration again becoming

difficult, the bowels confined, the urine scanty, and the pulse as it had been before under similar attacks. The same means were resorted to, and with similar happy effects. With slight interruptions in this way, the old gentleman has been enabled to amuse himself a little in business, and when the attacks come on, he speedily obtains relief by recurring to the measures described. There is now growing feebleness from the advances of age, but he is still capable of enjoyment, and almost daily gets abroad.

That this patient is the subject of valvular disease of the heart, and of thoracic, (and perhaps of pericardiac) effusion, will not, I think, be questioned; and it seems evident that the impediment to the transmission of blood through the heart occasions congestion and enlargement of the liver, and venous plethora of the other abdominal viscera. The first symptoms which were observed by the patient related to these effects, and indicated derangement in the organs of digestion. The difficulty in the transmission of blood through the aorta appeared to be occasionally increased, and this increase was invariably connected with defective urinary secretion. This circumstance, and the relief obtained by the action of digitalis, pretty clearly showed that the aggravated distress depended upon augmented effusion. Then it was interesting to observe the reduction that took place in the liver as soon as the relief of the chest admitted of greater freedom of circulation. The enlargement evidently was not owing to morbid deposition, but to congestion of vessels; and this condition, occurring under such circumstances, could not be limited to the liver, but must have extended more or less to all those viscera whose veins are tributary to the formation of the inferior cava. The derangement of the digestive organs arising from this state must necessarily have reacted on the thoracic organs, affording an instance of that complication of disease which we perpetually meet with in practice.

The following instance of contracted annulus venosus will farther elucidate the effects of cardiac disease on the abdominal and other viscera.

CASE 5.

Hepatic affection from disease of the heart.

On the 14th of November, 1825, I was requested to visit Mrs. C—, a person about forty-three years of age, and the mother of a large family. She had been indisposed for several years, but more especially since her last miscarriage, three years ago. For some months she had been under the care of a young physician in the city, but had derived no benefit from his prescriptions.

The symptoms of which she had so long complained were cough and difficulty of breathing. The respiration was so oppressed that when walking out she was able only to crawl along at a very slow pace, in consequence of what she and her friends called "the old asthmatical complaint." The breathing and cough were always worst during pregnancy. Her legs swelled, and she often was unable to lie down. This had been her condition for several years, till she thought she had caught cold some months ago, from which time the symptoms had been worse. I found her sitting up. The respiration was quick, and the cough short and almost perpetual. The abdomen was tumid. The pulse about 80 and moderately soft, but she often felt a degree of fluttering at the heart. The tongue was clean, the countenance distressed, and the legs were much swollen and distinctly oedematous. She informed me that on moving about her respiration became much more hurried, that she was frequently disturbed during the night with a sense of suffocation, from which she was compelled to rise up in bed; but that in the absence of the paroxysm she was able to lie on either side. The quantity of urine was rather deficient. She had occasionally felt pain in the region of the liver within the last five years, but it had not been violent. She considered herself enlarging in the belly, and on examination there was a sense of fluctuation; but this sensation was extremely indistinct owing to her being rather lousy, and the stomach and bowels were loaded with wind. Her appetite was much impaired.

As she appeared to be the subject of thoracic effusion the plan of treatment consisted of the acetate of kali with infusion of digitalis, and small doses of blue pill with squills. The pulse being rather full on the 27th I took away about ten ounces of blood, which did not exhibit any buffy coat. Twice a week she took an active dose of calomel and scammony.

After pushing the digitalis to the extent of half an ounce every six hours, the pulse became slightly intermittent; and though the quantity of the urinary excretion was augmented and the abdomen less tumid, yet it was evident there was no essential improvement, and the strength was declining.

On the 30th of November the digitalis which had before been reduced was wholly omitted, but she continued the other diuretics. During the week immediately preceding her death the head was a little affected; there was occasional wandering with slight convulsions, especially during sleep. The expectoration was a puriform mucus deeply coloured with blood.

An eminent physician met me in consultation on the 2nd of December. We coincided as to the nature and hopelessness of the case, but thought it possible that some amelioration might be effected, intimating, however, that she was in constant peril of sudden death.

As she lay in bed at this interview, we had an opportunity of examining the abdomen carefully, and we both thought that we could detect the presence of fluid; but it will appear by the *post mortem* examination, that no effusion had taken place into that cavity. The circumstance shows the liability to be mistaken when the abdominal parietes are fat and protuberant. We could distinctly trace enlargement of the liver.

The proceeding agreed upon was the continuance of the acetate of kali with squills, and some blue pill with henbane, at bed time. In the morning of the second day from this visit she expired, but not suddenly. It had been her request to be examined after death, and therefore on suggesting its propriety, the husband immediately complied.

Examination, Monday, the 5th.

On cutting through the parietes of the chest and abdomen we found them remarkably fat; the cellular substance was, at least, an inch and half thick. When the abdomen was opened there appeared no fluid. Both the large and small intestines were inflated, and the latter were of a deep red colour; not, however, so much from discoloration of the peritoneal coat as from the reddened state of the subjacent coats which were seen through it. When the intestines were opened the mucous coat appeared of a deeply red colour from congestion. The vessels were so turgid, that on moving the handle of the scalpel over the membrane it became besmeared with mucus deeply tinged with blood.

The liver was enlarged, and evidently diseased throughout. It was rather harder than usual, and very irregular on its surface, so that its external appearance gave the idea of tubercles, but on cutting into it the structure was found to be homogeneous. On the convex surface there was, indeed, one minute tubercle of a cartilaginous texture, probably the residue of an hydatid. The gall-bladder contained yellow bile.

The stomach was greatly inflated, and its mucous coat presented the same appearance as that of the small intestines.

The kidneys were rather large, but their structure did not appear unhealthy.

The substance of the uterus was nearly of a cartilaginous hardness, and the mucous lining was as red as if the cata-menia were flowing, though I believe she had not menstruated for some months.

On opening the thorax it was found that considerable adhesion existed between the pleuræ. The lungs themselves appeared perfectly healthy. In the right cavity of the chest there were about six ounces of fluid, and about three in the left. The costal pleura was of a red colour.

The pericardium contained only about half an ounce of serum, but the heart was large owing to dilatation of the right cavities and of the left auricle. It therefore became evident that there must be an impediment to the transmission

of blood through the left annulus venosus. After removing the heart, and slitting open its cavities, I found this aperture contracted to a mere fissure into which I could not introduce the end of my finger without the hazard of lacerating some of the fibres. The fissure was bordered by some fine beard-like excrescences. There was no obstruction in any other opening. The left auricle though considerably enlarged, was not so large as the right—which cavity, and its corresponding ventricle, were very capacious. The membrane lining both auricles was extremely opaque. The left auricula was wholly occupied by so firm a concretion, taking on so completely the irregular shape of the cavity, that I think it must have formed before death, as the action of the heart for the last day or two had been very feeble, and the blood, of course, was retarded in the auricle.

The origin of the pulmonary artery exhibited strong marks of inflammation. Its colour was deeply red except in the numerous points where lymph had been deposited between the coats; and on examining the lungs attentively I found that arteritis was clearly discoverable throughout the ramifications of the vessel.

The mucous membrane lining the trachea and bronchia was of a deep red colour and thickened; and on passing over it the handle of the scalpel blood could be pressed out with great facility. In some places there were appearances of superficial abrasion. She spat blood occasionally within the few days immediately preceding her death; and this state of the membrane accounted for it.

The head had been entirely free from affection till about the commencement of the last week, when the patient became at times rather incoherent, and was herself conscious of confusion though the head was not painful. I did not consider it necessary to examine this part, as it evidently was only the seat of congestion and perhaps of slight effusion, from the interruption to the return of blood.

With these facts before us the rationale of the symptoms becomes easy. That the disease commenced in the left

auricle of the heart cannot be doubted. Chronic inflammation probably arose in the lining of this cavity, and by degrees, under the inflammatory process, the annulus became contracted. When the contraction had become so considerable as materially to impede the transmission of blood, the pulmonary veins would be hindered in discharging themselves. The same cause, of course, that kept the veins in a state of distension would keep up a degree of constant pressure on the parietes of the left auricle, so that this cavity became dilated. This dilatation, however, is not a mere extension of the parietes, for if it were they would be attenuated, whereas they are thickened.

The left auricle then, and pulmonary veins, remaining overloaded with blood, there would exist a corresponding obstruction to the transmission of blood from the right ventricle to the pulmonary artery. This vessel, therefore, and its ramifications, would uniformly be loaded with blood, and the protracted distension and irritation to which the parietes were exposed probably induced those morbid actions in the *vasa vasorum* by which the depositions and other morbid appearances in this vessel were occasioned. The coats of the veins were perfectly healthy. Why there should be less tendency in them to become diseased than in the arteries may be an intricate question, but it is true that they are much less frequently the seat of morbid appearances. It is partially explained, in most of the veins, by the valvular structure. I may also observe that the pulmonary artery is not so often the seat of disease as the aorta. The tissue of the lungs was natural.

Having traced the effects of the contracted annulus through the pulmonary system we can easily explain the more remote effects. The pulmonary vessels themselves, loaded as we have described them, would resist the escape of blood from the right ventricle—this resistance being extended to the auricle and to the *venæ cavae*. The cavities must of necessity dilate, and a state of plethora would be observed in the veins communicating more directly with the *cavæ*. It has been mentioned that the whole mucous

membrane of the alimentary canal was in a state of extreme congestion, and even the mucous lining of the uterus; why the peritoneum did not exhibit the same appearance it might be difficult to explain. The pleura was reddened from congestion, and had at some period been the seat of adhesive inflammation; but the serous membranes appear to be less susceptible of the congestive state than the mucous.

Though the liver was of unnatural bulk, and somewhat harder than usual, it did not exhibit any essential disorganization, and therefore we are led to view the deviations in that organ as the result of the same series of causes impeding the current of blood through the *venæ hepaticæ*.

If we look to the superior cava the same effects are discoverable in the state of the mucous membrane of the trachea and bronchia in that of the pleura, and in the serous effusion; the symptoms too, more immediately preceding death, unequivocally indicated some affection of the membranes of the brain. The inflated state of the bowels, and the inconvenience she had experienced from the distended state of the abdomen, leading to the supposition of dropsy, are clearly attributable to the state of the mucous membrane and liver.

The heart has considerable influence on the state of the digestive organs, and on that of the general system, irrespective of mechanical obstruction, and it is of great importance to carry with us the recollection of this fact. Under inordinate bodily exertions, and the irritative action consequent upon rheumatic inflammation, when there is a tendency to dilatation and hypertrophy, considerable derangements of the digestive functions will often ensue.

In the following case the relief obtained from bleeding leads us to suppose that the disturbed action of the heart, and the consequent dyspepsia, arose chiefly from plethora; or, at least, that those affections were perpetuated by an overfullness of the heart and vessels, after the remote causes had been withdrawn.

CASE 6.

Dyspepsia from plethora.

A gentleman, about forty years of age, had been exposed to considerable exertion in walking, (often during very hot weather,) and also to anxiety of mind. His digestive organs became at times rather deranged. About the year 1820 he was seized with great irregularity and intermission in the action of the heart, distressing him, at times, for a twelve-month. It then ceased, being apparently removed by attention to the digestive organs, but he continued to feel a degree of obtuse pain in the region of the heart, accompanied with a sense of fulness and some degree of tenderness in the pectoral muscle. In the year 1823 he rode on horseback, but with little diminution of the pain, and whenever the pain was most severe, or the fulness most distressing, the stomach and bowels were deranged. There was constipation, flatulence, and prurigo podicis. The pulse generally was above 80. Sometimes the uneasiness in the right side of the heart was combined with such oppression of breathing and pain in the arm, that an attack of dyspeptic angina pectoris was apprehended. The relief obtained by alterative doses of calomel was but transient, and as the sense of fulness continued, sixteen ounces of blood were withdrawn. The symptoms had not indicated inflammation, nor did the blood exhibit the usual character of this state. The serum was very turbid, like milk and water. Great relief was obtained by this bleeding. The respiration became more free, the digestive powers were improved, and the bowels acted better than for several years. Now, when eighteen months have elapsed, the gentleman remains comfortable, though not without an occasional slight indication of the heart's being somewhat enlarged.

The effects of dentition on the liver are so common to the practitioner, that I shall only advert to it for the sake of the student. These effects are often so well marked that they

justly alive to the patient's condition, and wished that one of our most eminent city physicians should be associated with me in the treatment. We held a consultation on the 26th of October, when it was agreed that he should take two grains of pilula hydrargyri, and an equal quantity of pilula scillæ, and a lightly diuretic mixture thrice daily. When we met again on the 4th of November, he informed us that the medicine nauseated him, and he thought rendered his respiration more difficult. The pulse was still 140 and somewhat irregular, the urine still deficient, and the abdomen tumid. Taraxacum was now directed for him in the infusion of orange-peel, to be taken with the pills, and he was supplied with an antispasmodic mixture consisting of camphor mixture and vitriolic æther, of which he took a dose when the dyspnœa was urgent. It was also agreed to use the ointment of tartarized antimony.

From this time till the 14th his symptoms a little fluctuated. The ointment produced a full crop of eruption. He passed some nights with comfort, but in the course of others he had frequent attacks of orthopnœa: occasionally in the day he was cheerful and comfortable. The bowels were open, but the urine was scanty. The night of the 15th was peculiarly distressing to him, owing to the frequency of the paroxysms. The pulse continued to be 140, very small and irregular; still he informed me that excepting the occasional sense of suffocation, (which, however, was a most painful exception,) he felt well. He had naturally a settled florid complexion, but sometimes a slight leaden hue was perceptibly on the lips. The posture in which he lay most comfortable was supine. At this time the quantity of urine had greatly increased.

The night of the 16th was even more distressing to him than the preceding, the attacks of orthopnœa being more frequent, and he seemed very weak and dejected in the morning. The pulse was almost imperceptible and extremely rapid.

He was directed to continue the medicine as before, and to take five grains of pilula saponis cum opio at bed time.

The following morning he informed me that he had passed a most delightful night, not having a single attack; the pulse remained the same, but he described himself as being comfortable. He was desired to repeat the opiate every night, and to continue the mixture.

On the 20th diarrhoea came on, which was corrected by a cretaceous mixture. His respiration for a week remained somewhat better, but the difficulty then returned, and resisted all the measures, both external and internal, employed. Purgatives, antispasmodics, opiates, and medicines of various kinds, as well as external irritants, had been successively employed. Digitalis had also been given, but with timidity.

By the 8th of December the paroxysms were perhaps somewhat lessened both in violence and frequency, and yet it is scarcely possible to conceive of a state much more distressing than that of this gentleman. The least excitement or emotion of mind produced a paroxysm, but it often occurred without any apparent excitation. As he sat comfortably before the fire, or as he walked gently across the room, the attack would commence, and for two or three minutes he realized all the agony of a suffocating man. He might truly be said to labour for breath, with his shoulders elevated, and countenance deeply distressed. The pulse during the paroxysm was little, if at all, altered.

On this day a second physician, an able and eminent pathologist, was called in for consultation. We agreed that organic disease of the heart existed, that it was the cause of the paroxysms, and that it was irremediable. It was also evident that there existed a state of congestion of the liver, from the impediment to the transmission of blood through the heart. Still it was hoped that the sufferings of the patient would admit of alleviation, but by what means it was difficult to say, as so many had been tried without success. The second physician objected to digitalis on account of the pause in the action of the heart; he therefore suggested some pilula scilleæ with half a grain of calomel, and a saline draught three times a day. This plan, however,

although during most of the time, the child refused every kind of aliment except milk a little thickened with flour.

Up to this period the child progressively sunk. Its cries were very distressing, the bowels were greatly relaxed, the stools watery and fetid, and of a pale green colour. There appeared now but little prospect of arresting the progress to a fatal termination, and therefore I determined to try the effect of opium, which was prescribed in the following form.

R Creta præp.

Pulv. Acaciæ 3j.

— Opiati gr. v. M. et divide in
chart vj. Sumat i. quarta quaque hora.

On the following day there was considerable coma from the opiate, and therefore the interval was lengthened to six hours. The infant's sufferings were greatly diminished, and at the expiration of two or three days, the stools, though remaining liquid and copious, became of a pale yellow colour. The same medicines were continued regularly for a fortnight, when the child appeared well, with the exception of a little weakness, which country air removed.

Infantile convulsions not unfrequently arise from that state of irritability which has just been alluded to. The effect of the local irritation on the nervous system sometimes appears to be direct; but most commonly that high degree of morbid susceptibility which precedes the attack, is consequent on the derangement in the gastric organs;

CASE 10.

An infant ten months old began to be the subject of severe attacks of convulsions early in the year 1824, and within the first six months the attacks were both frequent and severe. The biliary system was greatly deranged; either there was nearly a total want of bile, or its quality was unhealthy, and the stools were extremely fetid. Almost every form of medicine suitable for such cases was tried;

the gums were divided, and leeches applied to the temples. An eminent physician once met me in consultation, but the measure he suggested, namely the *vinum ferri* in the dose of half a dram three times a day, with three grains of *hydr. cum creta* every other night, was too exciting. The hands became hot, the face flushed, and in a few days the child was attacked with a more violent fit than any of the former. The progress of teething was very slow, and such was the degree of irritation kept up, that sometimes for weeks together only a few moments of sleep could be obtained either day or night. Extravagant as this statement may appear it is quite faithful. The child was almost constantly in the arms, for when laid down it began to shriek immediately. The countenance sometimes assumed an idiotic expression; the eyes looked heavy, the pupils were dilated, strabismus was often noticed, as well as knitting of the eyebrows. Temporary relief was usually afforded by the division of the gums. The *hydrargyrus cum creta* had been repeatedly given, but I had been rather apprehensive of opiates on account of the cerebral affection; nevertheless, as the irritability continued, a small dose of the *pulvis opitatus* was given every night with the chalk and quicksilver. The irritability was greatly allayed, and after a few days it was reported that the child slept better at night and was more cheerful during the day. An unnatural eagerness, too, which it had manifested for every thing it saw, especially in the form of food, decreased, though it still took sufficient nourishment. By persevering in the same plan the secretions from the liver became healthy, the child increased in flesh, was more easily amused during the day, and slept tolerably well at night. The intervals between the paroxysms became more distant; indeed some weeks elapsed without an attack, so that a powder was only given occasionally, and at the close of April it was intended to place the infant at nurse in the country. Two days before this change was made, a powder having been omitted for two or three days, another paroxysm depressed the hopes of the anxious parents. However, as the nurse was engaged the child was taken

at the appointed time, and the parents wished that the effect of country air alone should be tried. On the following Friday, a few days after the removal, convulsions again came on, and the attack continued for three hours. The medical gentleman as well as using the warm bath, indiscreetly ordered the nurse to carry the child about the garden, though a cold easterly wind was blowing at the time. It took cold, and on Sunday morning symptoms of pulmonary inflammation came on. Leeches were applied to the temples during the fit on Friday, but none to the chest when pneumonia supervened. The symptoms progressively increased, and on Wednesday morning it was brought to town with urgent dyspnoea, perpetual cough, hot skin, distressed countenance, and contractions of the hands and feet. Leeches were applied to the chest, and other remedies resorted to, but on the following day the child died.

Though it was evident that death occurred from the acute disease, and that this would render the evidence of previous disease equivocal, yet I felt desirous of examining the body, and the friends readily consented.

The vessels of the pia mater covering the posterior part of the brain were very turgid, and the bloody points on cutting into the substance of the right hemisphere were exceedingly numerous. There also was some plethora of vessels traversing the membrane lining the ventricles. At the basis of the brain a little serous fluid had collected.

The cause of death, however, was seated in the chest. The pleura had been exceedingly inflamed, and on the left side, and also on the anterior mediastinum a very large quantity of lymph had been deposited. Serous fluid had also been effused into the left cavity. The mesenteric glands were somewhat enlarged, and the liver was in a state of slight congestion.

The lesions in the chest were undoubtedly the result of the last attack, and the fulness of the cerebral vessels was, of course, increased by the difficulty of respiration. Yet it may be inferred that there had previously existed a turgid state of the cerebral vessels occasioned and kept up by the

irritation of the gums, and the derangement of the digestive organs, and on its part reacting and tending to increase and perpetuate both these causes. Although the advantage we may sometimes derive from an opiate, where morbid irritability is the cause of convulsions, may be very great, it is a remedy of which we cannot be too circumspect; for an extremely minute quantity will occasionally induce irremediable coma from cerebral congestion.

The influence of pain in the teeth and gums is not limited to childhood, but is often manifested even in adult age. I have lately been consulted by a lady who complains of extreme acidity of the stomach—frequent pain in that organ, especially after eating, and a constant sensation of something resting in the throat. These symptoms are accompanied with considerable drowsiness. She reminded me that a few years before she had been a sufferer under precisely similar affections, and the attack had been preceded by toothach, and was accompanied by frequent paroxysms of that excruciating pain. Various measures were then tried but without success till the extraction of the painful tooth, when the dyspeptic symptoms immediately ceased. Now, though unwilling to lose her tooth, she traced the gastric disorder to the same cause, having been greatly teased with toothach before the symptoms commenced, and still suffering under frequent attacks. This opinion was strengthened by the circumstance that she had adopted the usual means of affording relief without being benefitted.

Biliary calculi.

The organs concerned in digestion exert considerable influence upon each other, the stomach or duodenum on the liver, the liver on the stomach and intestines, etc. This is strikingly manifest when calculi are passing through the biliary ducts, and often even whilst lying in the gall-bladder, though their effects are not then so strongly marked. So powerful is the sympathetic effect on the stomach that these cases are frequently mistaken for idiopathic spasm of that viscus. This happened in the following case:

CASE 11.

On the 23rd of September, 1812, I was desired to visit a young lady who for a few days had been under the care of a medical gentleman residing near. She complained of excruciating pain in the lower part of the right hypochondrium, nearly in the region of the right kidney, extending across the abdomen and up to the shoulder. The abdomen was tender, and the pulse small and frequent. The bowels had been freely opened by purgative medicine. The violence of the pain, and the symptoms indicating inflammation, I prescribed bleeding; and as the patient was strong and of a full habit eighteen ounces were withdrawn. A blister was afterwards applied, and nitrate of potash with tragacanth administered. By these means I found her much better on the following day, and as I then resided a few miles from town she was left under the care of the medical gentleman first called in.

On the 15th of October she placed herself exclusively under my attention, and informed me that since my last interview with her she had been the subject of frequent accessions of acute pain. She mentioned that the gentleman who attended her in town considered the attacks as a spasmodic affection of the stomach. At this time she had violent diarrhoea, but was free from pain. The crotaceous mixture with catechu removed the disorder of the bowels.

In a few days I was requested to see her under one of the paroxysms. The pain commenced suddenly in the back part of the right hypochondrium, shooting through to the scrobiculus cordis, and extending to the scapula; but though constant, it varied in degree. There was no tinge of yellowness on the skin. I had no doubt that she was passing a concretion either through the hepatic or common duct, and inferred that the pain in the posterior part of the liver was the result of irritation, or of obstruction to the exit of bile. The attendants were desired to examine the stools, and on the second day two small and hard concretions were discovered. She continued to undergo these paroxysms at

uncertain intervals—the onset and termination being sudden. The bowels usually became distended prior to the attack of pain, accompanied with a sense of pulsation in the region of the stomach. Then the darting pain came on with spasmodic contraction of the muscles. The pulse at the commencement of the attack was not above 100, but after some time it rose to 120. The abdomen remained tense during the paroxysm, and the stools were clay-coloured.

On the 29th of October the attack was more violent than usual, and lasted for several hours. A draught containing sixty drops of tincture of opium was taken, and fomentations were employed. The paroxysm which had commenced suddenly terminated with equal abruptness. On the 30th she had three evacuations, and in one of them a concretion, the size of a large pea was discovered. During the intervals of pain it was evident that the functions of the liver were unhealthy, keeping up considerable affection of the constitution. Thinking that the liver needed rather powerful excitation, I directed for her four grains of hydrargyri submurias every alternate or third night, and a light bitter with a gentle aperient in the day. She soon became convalescent, and by the 20th of November was quite well. She was then recommended to take five grains of the blue pill occasionally, and never had a recurrence of the pain. The tendency to the formation of concretions appeared to be superseded by the means employed.

Although the stomach is often the seat of idiopathic pain and spasm, it is equally true that gastrodynia and spasm often proceed from sympathy. The sympathizing organ may be the most prominently affected, and this circumstance tends to divert attention from the part first diseased. Having already adverted to the various sources of irritation, I shall only subjoin one additional instance in reference to the liver. In this case I believe that no concretion was discovered; indeed, so far as fell under my observation, the examination of the feces was not made with sufficient accuracy to warrant the expectation of discovering a small calculus.

CASE 12.

Towards the end of March, 1823, I was consulted by a lady about thirty-six years of age, who had recently come into the neighbourhood of London. She had been attacked with violent pain at the pit of the stomach, accompanied with excessive retching, and followed by a tinge of yellowness. She informed me that for ten years she had been the subject of these attacks, which had been considered by her medical attendants as spasmodic affections of the stomach. In reply to inquiries, she expressed herself ignorant of its having been suspected that she passed gall-stones.

The patient and her husband were so strongly preoccupied by erroneous notions, that the adoption of measures somewhat opposed to principles formerly inculcated met with great opposition. This attack proved mild, and on the 2nd of April the patient expressed a wish to discontinue medicine, though her digestive powers were much impaired and the tongue very white.

Early in the morning of Saturday, April 5th, I was urgently requested to visit her again, and was informed that having remained very comfortable till the preceding evening she was suddenly seized with spasms. She passed the night in the utmost agony of pain, and in great distress from vomiting. Some opening medicine was exhibited, but she retained nothing except pills. On close examination I found that the pain was seated at the edge of the right hypochondrium, corresponding with the situation of the gall-ducts. She threw up very little by vomiting besides the liquids drank. She requested effervescent medicine, as she said it had relieved the sickness on former occasions more than anything else. Though persuaded that the affection of the stomach was purely sympathetic, there was no reason to deny this request, but on trial it was rejected as other fluids had been. She continued through the day in nearly the same state. She passed a slight evacuation from the bowels which was too solid, and also deficient in colour. On Sunday morning she was very yellow. The pain was in

the same situation, though not quite so violent as during the night. There was exquisite tenderness through the epigastric region, especially towards the right side in the situation of the gall-ducts, and no doubt could reasonably be entertained that she was passing gall-stones. The pain had now continued long, and the tenderness being very considerable, the abstraction of blood and the administration of opium in free doses were advised. To both these plans objections were offered, "because the former medical gentleman had considered the lady highly nervous, and had regarded the disease as spasmodic, and had always found opium disagree with her." However, the course to be pursued was now clear, and there was no alternative but the adoption of such measures as seemed to me likely to benefit the patient, or discontinuing my attendance. After some discussion the measures were acceded to, though my confidence was regarded as an approach to rashness, and was viewed with trepidation. I withdrew about twelve ounces of blood. A grain of opium was directed to be taken every two or three hours, and the warm bath to be used if the pain did not speedily subside. On calling a few hours afterwards I found that she was considerably better. The bleeding had lessened the tenderness. The serum of the blood was very yellow, but the skin was not so deeply tinged as it had previously been. There was some uncertainty whether a concretion had passed, but she was advised to take some opening medicine, and the attendants were requested to save the evacuations for my inspection. A blister was applied with a view to remove any remaining irritation.

On Monday morning she informed me that after enjoying sleep in the night she had suffered a slight return of pain in the morning, accompanied with much sickness, and the skin was now more intensely yellow than before. The opening medicine not having acted an enema was administered, and the opening pills repeated. At the time of my visit the more acute symptoms had subsided.

In the evening an eminent physician met me in consultation.

He fully concurred in my opinion as to the nature of the disease, and also in the treatment, namely, that it should consist of opium and the warm bath during the violence of pain, with purgatives during the intervals.

For about three days she continued to suffer pain at intervals, but it was always lessened by opiates, and among these Batley's sedative acted best. The bowels were kept gently open, the sickness abated, and the yellowness of the skin gradually decreased, so that by the 14th it was scarcely perceptible. Her general health was much improved. During the first day or two after the importance of preserving the excretions for inspection had been urged, the request was complied with, but afterwards it was perversely neglected. The husband informed me that on one occasion he observed small pieces of substance of a square form, and in consistence resembling soap, which, though very characteristic of some of these concretions, he did not regard under an idea that *calcareous* substances were to be looked for.

The blue pill, in the dose of five grains every other night, some bitter infusion twice a day, and an occasional aperient were now recommended, in conjunction with bodily exercise. These plans were followed for a very short time, for the pain having been relieved and comparative health regained, the patient had little disposition to persevere in the use of means likely to prevent a recurrence. At no very distant period the attacks did recur, but as my attendance on the family ceased at the close of the previous indisposition, I am unacquainted with their nature.

We have no means of ascertaining when the concretions already formed are wholly removed from the liver or gall-bladder, and therefore should be very cautious in promising exemption from subsequent paroxysms; but much may be effected in counteracting the tendency to their formation, by a persevering course of gently exciting medicine, moderate diet, and active exertion. Their adaptation to the previous habits and constitution of the patient must, of course, be duly regarded.

In relating the previous cases the chief object has been to show the influence of one of the viscera concerned in digestion on others. If viewed merely as to the paroxysms of pain when a concretion is traversing the ducts, they may not have a direct bearing on the point in question, but when we consider biliary concretions, even whilst lying in the gall-bladder, as well as when somewhat silently passing the delicate canals, as a cause of sympathetic disturbance in the stomach, which not unfrequently happens, the irrelevancy ceases.

The termination of morbid actions in organic lesion has been repeatedly adverted to, and by the frequency of its occurrence admits of easy demonstration. It is, however, a subject so important that we cannot too often bring it under review. The following case has a primary reference to the influence of the mind in disturbing the functions of the liver, but I shall adduce it more especially to show some of the consequences of protracted disorder of function, and also to elucidate still farther the effects of disturbed action in one of the viscera concerned in digestion on others. It shows, too, the insidious commencement of organic lesions, and suggests some important hints respecting the caution necessary in the administration of purgative medicines when mechanical obstructions exist.

CASE 13.

Diseased liver and contracted intestine.

The subject of this case was a respectable and amiable lady, about fifty, who for twelve months had suffered from a disturbed state of the digestive functions, apparently in consequence of mental distress arising from her husband's embarrassments, acting more directly on the functions of the liver. She never persevered in any medical plan, but obtaining relief from the more incommoding symptoms she usually sought the confirmation of her health by a visit to Gravesend. She had never been disabled for her duties, but actively assisted in her husband's business, feeling, however, very

keen mortification at the unexpected disclosure of difficulties, the effect of which on her was not lessened by her amiable efforts to conceal as well as to repress her trouble.

Towards the end of September, 1816, her bowels became confined, and extreme flatulence resulted; whilst, in this torpid state of the bowels, the stomach became irritable. It was difficult, under these circumstances, to act on the bowels; but after the trial of various powerful means, evacuations were obtained. Very soon, however, she had to combat the same impediments, and about the middle of October the attack was unusually severe. The pain, at short intervals, was very acute. The abdomen was distended to the utmost. Clysters thrown into the rectum were not perceived by the patient, though by this means dejections were obtained. In the early part of her illness, the abdomen being very tender, I bled her, and repeatedly blistered the abdomen. Enemata, as well as active purgative medicines, were frequently resorted to. Mercurial remedies were always followed by violent pain. The pulse generally was about 90 and firm.

On the 19th she was visited by a physician, who advised the sulphate of soda with tincture of hop every six hours, and eight grains of the blue pill at night, a clyster being administered in the morning. On the 20th there was less tension and pain, and the clyster when thrown into the rectum was perceived by the patient. For two days the enemata had been more stimulating than at first. During the night of the 19th, and through the whole of the 20th and 21st, the evacuations were almost hourly. On the 20th she felt extreme depression, the pulse was very feeble and about 160. The tongue was furred and of a brown colour, except at the edge which was red. The abdomen had sunk to nearly its usual flatness. The breathing became oppressed, accompanied with considerable pain in the chest and hiccup; and in the course of the day a much larger quantity of brown fluid was vomited than of all the fluids she had taken. A large blister was applied which greatly quieted the stomach, and relieved the breathing.

On the 21st a cretaceous mixture was given, and a little brandy and wine in panada, and other forms of nourishment. The vomiting ceased, but the diarrhoea continued, and sometimes there were flakes of concreted matter in the motions. The abdomen was soft, and not painful on pressure except about the pit of the stomach. She daily sunk. The countenance was distressed, though the mind was tranquil. It was remarkable that during the state of constipation the pulse seldom exceeded 100, and generally was not above 90; but when free evacuations ensued it rose progressively to 160. She expired on the 24th.

Examination of the body. The parietes of the abdomen were fat. There was general turgescence of vessels throughout the peritoneal coat of the intestines and stomach, but no agglutination. The liver was not large, but in a state of sanguineous turgescence, and some parts of it were occupied with tubera circumscrip^{ta}a. The gall-bladder was full of bile.

We removed the stomach and intestines, but on raising the colon it separated about two inches above the sigmoid flexure, and on subsequent examination we found that at this point great contraction of the bowel had taken place—the annular ring formed by the thickened coats would scarcely admit the end of a finger. At some parts of this ring ulceration had taken place, and in one point the coats were destroyed; but the escape of feces was prevented by a large portion of condensed fat. The stomach, and the whole of the bowels above the contracted part, were greatly dilated. The mucous coat of the stomach was not unnatural. The pyloric glands, and those occupying an inch or two of the upper portion of the duodenum, were enlarged and diseased. The rest of the duodenum and the jejunum were healthy, except that the glandulæ solitariæ were somewhat enlarged in the lower part of the latter. Throughout the ileum the glands were much enlarged, and at the part nearest to the colon, through a considerable extent, ulceration was very extensive. The inner coat of the colon was generally in a healthy state except at the contracted part.

The other viscera were healthy, except the uterus which was small and flaccid, and its mouth closed by a firm membrane.

These appearances very satisfactorily explained the previous symptoms. So far as the priority of symptoms enabled us to judge, the liver was first affected; but it is equally certain that the disease in the intestine had been of long standing. There is reason to suppose that during the last year the lady had not been wholly free from pain for any long period, yet, except at intervals of a week or two, she engaged in active duty, ate heartily, and slept well; but ordinarily had signs of dyspepsia, with frequent interruptions in the biliary secretion. She had a tendency to constipation, which she had counteracted by taking Epsom salts. Throughout life she had been a woman of very regular habits, but had that state of morbid feeling denominated nervous, and adopted the erroneous notion that such feelings must be opposed by more frequent supplies of nourishment than other people require. She therefore not only dined heartily of animal food, but partook of it freely at supper, drinking porter and often wine—habits which undoubtedly perpetuated the feelings they were designed to overcome.

The circumstances of the last attack were clearly elucidated by the examination. The cause of final suffering was an accidental obstruction at the contracted part, and the measures adopted to overcome the obstruction, as well as the accumulating ingesta and unhealthy secretions operated so as to increase the activity of the disease. If such a cause of obstruction could be ascertained during the life of the patient, or is even suspected to exist, caution in the administration of purgatives, especially those of an active nature, is requisite: for if mechanical obstruction exist, the bowels are not only stimulated by the medicine itself, but the quantity of secreted fluid is greatly augmented by the excitation of the mucous membrane, so that the patient becomes additionally distressed by the distension of the bowels. There was another point explained by the examination, namely, that when, within the last year, she took any mercurial

preparation, even the blue pill, it was followed by violent pain in the abdomen, which she had not previously suffered after taking it. The additional flow of bile which it induced irritated the mucous membrane at those parts where disease had rendered it morbidly susceptible, and occasioned spasmodic contraction.

In hepatic disease, even when from the repeated attacks of inflammation there appears reason to suspect that organic lesion has taken place, much may be effected by persevering and cautious management. And even when organic lesion has occurred the disease may often be kept quiet and comfortable existence be prolonged.

CASE 14.

On the 16th of April, 1813, I was desired to visit the wife of a labouring man at Bromley. She was about forty. A report was given me of several severe attacks she had undergone, and from the description I supposed that they had been owing to the transmission of biliary concretions. She had not recovered, however, in the intervals, notwithstanding a variety of measures had been adopted. The illness under which she laboured at the time of my being called in commenced three weeks before with pain in the right hypochondrium, an irregular state of the bowels, occasional difficulty of respiration, and sickness. At times during the progress the skin had been tinged yellow, and the urine had dyed the linen. Mercury had been given rather freely. The parochial medical man had attended the woman, and as the disease advanced and seemed to him hopeless, he left her in charge of his pupil with instruction to give opiates to allay the pain, which continued progressively increasing, whilst the powers of life were rapidly declining. When I saw the poor woman the pain was extremely acute, extending from the hypochondrium to the back and shoulder and to the scrobiculus cordis. On the lightest pressure the pain was exceedingly aggravated. The pulse was small and not hard and the tongue but little white. When the duration of

the disease and the weakness of the woman were considered, it seemed a rather forlorn hope to attempt her restoration. Eight ounces of blood were immediately withdrawn, and a warm bath recommended, if her strength would allow her being placed in it. The latter measure was effected with great difficulty, but on the following day she evidently was not worse. The blood was buff and cupped. Ten leeches were applied to the hypochondrium, and afterwards a blister; and saline aperients with antimony were also prescribed. She passed an extremely painful night. The bowels were opened only once, and the feces were firm, offensive, and scanty. The pulse still was very quick, and the pain violent. The bleeding was repeated and sixteen ounces of blood were taken away. The abdomen was fomented with a decoction of poppy heads and camomile, and the medicine continued. On the 19th the tenderness at the pit of the stomach was rather lessened, and throbbing in this part, which had been very troublesome, had somewhat decreased. Her diet was limited to gruel and very weak broth. Five dejections had resulted from the medicine. She slept comfortably in the night and awoke refreshed, which she had never done after sleep obtained by the opiates; indeed, after the temporary ease procured by the sedative her sufferings, as might be expected, were aggravated. She could now bear considerable pressure, and the frequency of the pulse was greatly reduced. She was directed to continue the same plan both as to medicine and diet. Within the ensuing night she experienced considerable pain and had stranguary, probably from the blister. On the following morning she was comfortable. She slept soundly the next night and was quite free from pain on the 22nd.

From this period she progressively amended. Her diet was improved with caution, and the bowels were kept regularly open. The memorandum made on the 12th of May records a favorable progress and reports her sitting up.

She had scarcely recovered strength enough to get about before she was again seized with pain in the liver, and she continued to be the subject of attacks which sometimes

indicated gall-stones, and at others congestion, for two years. They were always relieved by treatment similar in principle to that adopted at first, but modified by the urgency and nature of the attack; and feeling deeply interested for the worthy though poor woman, no effort was spared to assist her. Early in the year 1816 she had a violent attack, and having then removed into town, she had been seeking assistance near home for three weeks before I saw her. I found her labouring under subacute inflammation of the liver with some enlargement of its bulk, and so broken down by the sufferings of three or more years, as well as the constant pain of three weeks, during which she had been confined to bed, that the hope of even affording relief was not very encouraging, and much less that of permanent recovery. She was so extremely feeble that bleeding was not recommended, and yet there was acuteness enough remaining to render caution in the use of mercury necessary. It was recommended that a large blister should be applied over the right side; that five grains of blue pill should be taken twice a day, and a dram of oil of almonds in emulsion, with nitrate of potash and antimony, three times a day. This plan, with slight modification, principally consisting of the occasional omission of a pill, was continued for three weeks, by which time she had become comfortable. She called upon me, with a friend, early in the ensuing year, having walked several miles, and told me she was perfectly well, and had remained so for many months.

A few years ago I was consulted respecting a case of subacute hepatitis, which had arisen from the high excitements to which a delicate female is sometimes exposed on entering the conjugal state. The patient in this case was a young woman of an exquisitely susceptible disposition. Soon after marriage she became liable to attacks of hysteria, and was often affected with vertigo. After a little time the determination to the head subsided, and was followed by a similar condition of the liver. The pain in the right hypochondrium was considerable, and was accompanied with a sensation of fulness. She was unable to expand the chest

without its producing considerable pain. She was moderately bled. Some Epsom salts were given in the infusion of roses, and occasionally she took a very small dose of calomel. By these means the inflammatory symptoms were subdued; and afterwards, by removing her temporarily from the causes of excitement, by giving light tonics, and by enjoining caution on the husband, she ceased to suffer from those powerful affections of the nervous system which occasioned the unequal distribution of blood.

In several of the preceding observations the necessity of personal examination in cases of protracted disease has been urged. The following fact places its necessity in a strong light. It is true that when the existence of a tumour was ascertained it did not appear to admit of remedy, nevertheless both the credit of the practitioner, and the interests of the patient, require, even in irremediable cases, that their nature should be determined.

Abdominal tumour with vesical catarrh.

On the 6th of November, 1824, I was requested to see Mrs. L., of East Smithfield, aet. about fifty-five, who for six months had laboured under an affection of the urinary organs, and, (being a fastidious woman), had been successively attended by five physicians, and three of them men of the first professional rank. Although the patient had long been what she termed a bilious subject—though from the very commencement of an affection of the bladder the dyspeptic symptoms had been severe—though she had felt occasional pain in the right hypochondrium, and what she denominated rheumatic pain in the right scapula, yet the attention of all the gentlemen had been almost exclusively directed to the state of the urinary organs. One or two of them had certainly not wholly overlooked hepatic secretion, but their attention had not been directed to it for any determinate purpose. The hand of one gentleman had been laid on the abdomen, but it was merely to ascertain whether it were tense or tumid. The following history of her case was given me by the patient. For six months she had

voided, with the urine, a large quantity of a whitish puriform matter, and though it had somewhat varied in quantity, its appearance had never ceased. At times she felt occasional pain in the loins, shooting through the ureters into the bladder, and down the thighs. She had occasional nausea, excessive flatulence, and a white tongue. The pulse was about 90, and she often felt pulsation *in epigastrio*. Occasionally, too, she had a distinct rigor. The hepatic secretion had all along been very unhealthy. Sometimes the feces had been clay-coloured, but of late they had either been extremely dark or of a reddish yellow. Her appetite was impaired. As she sat dressed in her chair the abdomen did not appear tumid, nor did it feel tense, nor was she aware of any tumefaction in the right side or elsewhere. This examination, however, was not satisfactory, and on repeating my visit the examination was made as she lay in bed. The parietes of the abdomen were remarkably flaccid, and yet in the supine posture nothing unnatural was at first detected, but on closer examination a tumour was discovered in the right iliac region. At first it seemed to pass in an elongated form towards the corresponding hypochondrium, but on placing the patient on the left side I could easily insulate the tumour, and almost place my fingers underneath it, owing to the extraordinary flaccidity of the parietes, and the loose attachments of the tumour. In this position, too, the liver could be traced extending from its natural situation, in a rather lengthened form, to about two inches below the umbilicus. The bulk of the tumour exceeded that of a large fist, and was very tender on pressure. Dr. Babington was requested to meet me at a subsequent examination, and from the loose connexions of the tumour we were led to suppose it was mesenteric.

Five grains of blue pill every other night, and some bitter infusion with carbonate of soda, and an occasional dose of rhubarb and magnesia, were beneficial to the general health, and the puriform deposite rather decreased. We could entertain no hope of removing the tumour, but the case affords a striking example of the importance of careful examination

in the supine position, and forms an appropriate sequel to the previous observations on this topic.

Influence of the nervous system and the mind on the digestive organs.

Although the agency of the nervous system has not been directly spoken of, it has been alluded to in the sympathies of the viscera, and in some instances of mental suffering. Dr. W. Philip and Dr. Breschet have illustrated the effects of the nervous system by numerous and interesting experiments. These experiments, indeed, were not necessary to determine the fact that the functions of the digestive organs, and of all other organs, can only be properly executed so long as the agency of the nervous system is duly maintained; but some facts of considerable importance have been elicited or established by their labours.

In the whole circle of intricate problems submitted to the investigation of the medical practitioner, none are often more difficult of solution than those that relate to the causes of disease. We may, perhaps, generally except those diseases which have a specific origin, especially if dependent on infection or contagion; and yet sometimes even the sources of these are involved in mystery.

Long before the experiments alluded to, it had been ascertained that on dividing the par vagum the functions of the stomach and lungs became disturbed. Nausea and vomiting usually resulted—circumstances which proved the influence of those nerves on the stomach. The fact, however, that vomiting should have resulted, was a proof that another series of nerves was distributed to this viscus; but the more clear elucidation of this deeply interesting subject was suspended till a flood of light was thrown upon it by Mr. Charles Bell and by Majendie.

Ducrottoy de Blainville inferred that the powers of the stomach were totally annihilated in consequence of the division of the eighth pair of nerves; and the digestive power does appear to have been destroyed, for Mr. Brodie

found undigested aliment in the stomach seven hours after the nerves had been cut. Legallois and Dupuy observed similar results. Our countryman Dr. W. Philip conducted these experiments still further, and arrived at a conclusion which nothing but accurate experiments could have determined. He found that although the functions of the stomach were suspended by the division of the nerves, yet that digestion might be effected by directing a stream of the galvanic fluid along the lower portion of the nerve. It seems not to have been sufficient simply to divide the nerve, for if a portion were not removed, or if the divided extremities were not kept considerably apart, digestion proceeded, though imperfectly.

It has also been ascertained that the section or destruction of a part of the spinal marrow, or the removal of a portion of the cerebellum, acts in the same manner on the digestive process. Legallois and Dupuy likewise found that narcotics when productive of coma equally diminish the power of digestion, and that whatever counteracts the due distribution of nervous influence, proportionately suspends the process of digestion in that organ.

Before these experiments were instituted, it was well known that digestion was effected by means of the gastric and other secretions, and that all secretion was influenced by the nervous system. However, though it was known that one of the most important agents in the complicated process of converting alimentary substances into chyle must be derived from the brain and nerves, yet the subject was attended with numerous difficulties, some of which modern physiologists have unravelled. To refer digestion, however, to that agency exclusively, would be to suppose that food might undergo this change wherever it might be submitted to nervous influence. There is a peculiar beauty in the arrangements of infinite wisdom, and in none is it more strikingly exemplified than in human physiology; the peculiar function of every organ, involving the most intimate connexion and essential dependance of one system upon another performing different offices but acting in unison.

To determine the influence which the nervous system exerts over the process of secretion we need only advert to phenomena of daily occurrence. What a redundancy of tears, and even of urine will sometimes be secreted under mental uneasiness! Not unfrequently, however, we witness the very reverse of this, especially when the feeling of distress is intense. Of this a few years ago a most painful instance passed under my observation. An amiable couple who had been married about a twelvemonth, and who had realized the fruition of hope in the person of a little daughter, had temporary lodgings in the vicinity of town. Whilst the wife prepared the breakfast the husband accompanied some friends to an adjoining stream to bathe. All was made ready for the repast, and the wife, a woman of the acutest sensibility, sat at the window nursing her lively and healthy babe, watching for the first glimpse of their return, and intending to welcome her husband by the joint attractions of her own affectionate and cheerful countenance, and the lovely face of their little offspring. It has justly been said that "hope deferred maketh the heart sick." The time elapsed, messenger after messenger was despatched but none returned. The fact was the husband was drowned, and the party waited the arrival of a relative from town whom they considered the best channel of communication to the widow. It will be readily conceived that her mental agony was of the most poignant character, and for many days secretion was almost totally suspended. She was unable to weep. The dejections, which were obtained with difficulty and were very scanty, were almost colourless; and after the lapse of two or three days she became affected with subacute hepatitis. The skin and tongue were uniformly dry, and the kidneys did not secrete an ounce in twenty-four hours. Weeping seems not only an expression but an outlet of sorrow. It appears to sooth the mind, and to allay the irritability of the nervous system. When there exists the inability to weep, the crisis of mental agony from which a mitigation of suffering commences, is protracted.

Upon no series of organs is the influence of mind more forcibly evinced than on those concerned in digestion. At a moment of full health, and about with a keen appetite to partake of the pleasures of the table, the sight of a loathsome object, or the hearing of some distressing tidings, will so disturb the nervous system that articles previously the most inviting to the palate excite disgust. If these occurrences transpire immediately after the stomach is replenished digestion is suspended, the food lies a heavy and oppressive load, of which the patient is not relieved till the organ has ejected its contents. If the food is retained under these circumstances it proves a source of gastric and intestinal irritation, giving rise to acidity, flatulence, colic pains, and ultimately, perhaps, to diarrhœa. Where there is no relation to food, a dull aching and sense of anxiety at the pit of the stomach, in the region of the solar plexus, long remains, even when the mind needs to be reminded of the cause. Not unfrequently mental uneasiness produces diarrhœa without any other obvious effect. Sometimes the agency of mind is exerted on the whole of the abdominal organs, at others on an individual organ, the whole perhaps becoming affected consecutively. The effect exerted on the stomach and intestines has been adverted to, and indeed, also on the liver.—Perhaps the functions of no organ in the body are more frequently deranged from this cause than those by which bile is formed, and from whatever cause the liver becomes affected its action or reaction on the mind and nervous system is of the most extraordinary kind.

Often when the emotion is severe the effects are so manifest that no doubt can be entertained of their connexion. At other times the effects being less prominent, and not productive of material inconvenience, they command little attention, but may lay the foundation of future mischief. When the cause producing morbid action is withdrawn, the derangement usually adjusts itself, or is adjusted by those casual circumstances by which the balance of the vital functions is maintained. These happy results, however, do not always follow. There may be a continuance of disordered function,

and the morbid action may issue in organic lesion not only of the part itself but extending to other structures involve them in the same mischief. In most cases of disorganization the sufferer is quite incapable of tracing the disease to its commencement, or to the circumstances in which they originated, and it is highly probable when not the result of age, a large number of the instances originate in the obscure manner just adverted to: not, indeed, always from mental emotion, but from any other causes of disturbance in the nervous system. When we consider the numerous sources of emotions and passions, from domestic causes, from business, and from topics of popular excitement, we shall regard this as a fruitful and prevailing cause: but we must not exclude diseases in remote parts acting on the brain and nerves, atmospheric influence, indiscretion in diet, and many other circumstances which have a tendency to disturb healthy action.

Observations.

If then this view of the different sources of derangement in the organs concerned in digestion be correct, how is it possible that any single measure can be devised by which the disorder will be adjusted! To rely on the same medicines, to prescribe the same diet, to establish the same intervals of taking food, to enjoin the same exercises, is nothing else than empiricism. Even if we admit that the effect of the various causes may be alike, surely there must be some reference in the treatment to the cause itself, and likewise to the constitution. Sometimes bleeding will be requisite—sometimes active purging—sometimes perseverance in the mildest doses of mercurial remedies—sometimes bitters or tonics. At all times the diet must be most carefully regulated, but we should bear in mind that there are persons who cannot undergo very long intervals between the seasons of taking nourishment without being distressed, and this is particularly the case with children. I do not advocate a system of repletion, nor the ridiculous practices of parents who allow

their children to be almost constantly eating; yet the digestion of children is generally more rapid than that of adults, and how often do we see some children in a school, or family, who cannot endure the same interval as their companions, but in attempting it are reduced to a state of extreme irritability and languor.

With respect to the administration of purgatives, there are three points to which I shall just advert. There will sometimes be fatal accumulation of feces in the intestines, when both the patient and attendants report that the bowels are freely relieved. When the obstruction arises from a mechanical cause, as hernia, or contraction, great caution is necessary in the administration of purgatives. Purgatives are not unfrequently persevered in to remedy unhealthy secretions, pain, tenderness, and flatulence, solely kept up by the means employed.

In cases of constipation we must be careful that the discharge of a loose motion does not deceive us, for this may happen without the bowels being sufficiently acted upon. We ought never to be satisfied in any serious case without careful examination with the hand, for it will frequently happen, even after fluid dejections, that a large accumulation of feces shall exist. On the 12th of December, 1818, I was consulted respecting a little boy, four years of age, who for several days had been unwell. I prescribed for him a dose of calomel, which in the course of the day affected his bowels three times, the motions being loose and yellow. His diet consisted chiefly of fluid aliment and of this he took but little. On the morning of the 13th he had considerable fever remaining. The pulse was extremely quick, the abdomen was tumid, and the tumefaction appeared to be from solid contents of the colon. Under these circumstances an active dose of calomel and jalap was directed. The result of this was that early the next morning he voided an excessive quantity of formed and hardened feces some parts of which were of a black colour. After this evacuation the febrile symptoms speedily subsided.

A respectable and intelligent man who was drawing

towards that advanced period of life when organic lesions most frequently occur, and who had been suffering under chronic and protracted derangement of the digestive organs, availed himself of domestic aperients, and believed that his bowels were kept freely open by them. I was led, when consulted, to entertain some doubt as to the sufficiency of his excretions, and, watching the effects of the means employed, was soon confirmed in the opinion. A more efficient purgative was prescribed, and to his surprise and comfort he voided as much solid excrement of a brown colour as would more than half fill a large *pôt de chambre*.

In a case of puerperal peritonitis in which I was called into consultation with the attending practitioner, I was informed both by the practitioner and the nurse that the bowels were quite open. The former assured me, and had been assuring the lady's friends day by day, that she was getting much better. From puerile, nay, almost unpardonable delicacy in such a case, he had never laid his hand upon the abdomen, and from fear of exciting alarm on his first attendance on the patient he had treated the affair much too lightly. Feeling herself actually getting worse, and the friends becoming alarmed, I was called in, having previously attended her in London. She was lying on her back with the head raised. The pain had progressively increased and was now violent, and the respiration was difficult. Her countenance was distressed, the pulse 120 and hard, the skin hot, the abdomen was exceedingly tender, especially in the region of the *caput coli*, where there was tumefaction apparently from indurated feces. There was prostration of strength, not absolute, but such as often attends visceral inflammation, and the sense of which is mitigated by bleeding. I directed that she should be immediately and copiously bled, but when about fourteen ounces were withdrawn syncope occurred.

R Hydr. Submur. gr. v,
 Pulv. Scammon. gr. ij,
 — Jalapii gr. x, ft. pulvis; statim

sumendus; et habeat olei ricini drachmam in emulsione, cum potassæ nitratis granis decem, quarta quaque hora, et imponetur emplastrum lyttae parti dolore affectæ.

On the following day we found the blood buff and cupped and the crassamentum occupying but a small space in proportion to the serum. The pain was greatly mitigated, and the patient could make a deep inspiration without its being augmented. The bowels had been relieved by very copious evacuations, so that the tumefaction at the caput coli was lessened as well as the tenderness. She was directed to continue the draughts, and to repeat the powder the following morning in half the previous quantity. After this time she took saline medicines with occasional purgatives, and by the 20th was nearly well. She then complained of flatulence, and other slight dyspeptic symptoms, for which some infusum calombæ was directed and completed the recovery.

Too much had been trusted to report, and the patient might have fallen a victim to the practitioner's negligence. In many cases of internal disease we have already shown that the most serious lesions may be going on without any strongly characterized symptoms, especially with respect to the pulse. The pulse may be small, indeed generally is so in visceral inflammations, but this is not to deter from the use of the lancet. Information must be sought from every source, that the most efficient means may be interposed with a prospect of success, and great culpability will attach to the practitioner if he be remiss in personal examination.

Active purgatives are not merely required in cases of accumulated feces, but are sometimes useful by instituting morbid actions, by setting up a temporary disease through the alimentary canal. Something may be attributed to the increased secretion, but the maintenance of morbid action has sometimes considerable influence in controlling functional affections which did not originate from gastric

disease. The following case, I think, we may regard as an example.

On the 26th of February, 1813, I was consulted respecting a young woman twenty-two years of age, who six months before had met with disappointment in an affair deeply interesting to her affections, and since that time had suffered from violent palpitations, accompanied with dull pain. The palpitation and pain were increased by surprise, emotion, or exertion. Though the mental affection had subsided, the effects on the functions of the heart were so far from subsiding, that during the month immediately preceding my interview with the patient the symptoms had greatly increased in violence, so that the pain was now very acute, and always accompanied with palpitation and dyspnoea. The pulse was regular and did not exceed 90, and the countenance was but little distressed. Various means had been tried, as blistering, febrifuge and chalybeate medicines, and occasional purgatives. I prescribed for her a saline mixture with tincture of squills, and the following pills.

R Aloës Soccott. 9ii,
 Olei Menthæ gutt. vj,
 Gum. Fœtid. 3j, ft. pilulæ xxiv.
 quarum sumat ij. ter die.

After taking these medicines for a few days the bowels were freely acted on, and the constitutional susceptibility decreased. By the 3rd of March the affection of the heart was removed, but the patient was rather weak, and suffered from occasional pain in the loins. On the 8th she reported herself quite well.

In many cases of chronic pulmonary affection, pain, expectoration, and dyspnoea, will be suspended during the existence of diarrhoea, whether arising spontaneously or excited by art; but where there is organic disease, or a strumous or broken constitution, the continuance of purging may be a serious evil.

A few observations on the other side of the question may

not be misplaced ; for although there are cases in which it is necessary to give purgatives freely, there is some reason to apprehend that a disposition prevails to give mercury too indiscriminately. Having already developed my views on this subject in scattered observations, I shall imbody them here in a few words.

Whenever dyspeptic symptoms arise from suspended or morbid action in the liver, alterative doses of mercury are usually had recourse to. This is, perhaps, the most common form of derangement, and in its treatment Mr. Abernethy has justly acquired great celebrity. His blue pill administered in a dose, and at intervals, short of irritation, aided by decoction of sarsaparilla, has been most extensively useful. But I may venture to submit that Mr. Abernethy himself has circumscribed his principles too much. He has often been prescribing for an effect without regarding the diversities of cause. The principles, however, which he himself has enjoined have been greatly abused, and many practitioners, whilst avowedly acting upon them, have increased the derangement in the functions of the liver by the too free administration of the remedy. For an adult five grains may be an adequate dose, but it is impossible to determine this with certainty ; for some persons are so easily acted upon by mercury, that half the quantity might be as much as can be borne. Not unfrequently it is necessary to diversify the form of the mercurial, and this may be done without violating the principle. Calomel, under some circumstances, will exert a decidedly more beneficial effect than the blue pill. Advantage will sometimes be derived from the employment of mercurial remedies at much shorter intervals than at others ; the inaction of the liver resists the effect of doses administered at the interval of two days, whilst the same quantity taken in divided doses thrice a day excites and establishes secretion. Whatever plan is adopted the effect must be watched, for if mercury do not act well, it might, if long persisted in, do excessive mischief. Green and slimy stools are often the result of the excess of mercury, and I believe it is not very uncommon with some

practitioners to redouble their forces when these appearances are detected, by which practice they aggravate symptoms they intended to allay. Cases very frequently occur in which by reducing a grain of calomel to half or a quarter of that quantity, or blue pill from five grains to two or three, the secretions from being of the morbid qualities just mentioned assume a healthy character. As it is not the design of this administration of mercury to act on the bowels, except secondarily, patients should be made aware of this circumstance that they may take some mild aperient if requisite. It is really surprising what essential relief is sometimes experienced from such medicines as gently excite hepatic secretion before any alvine excretion has ensued, but patients are often rendered uncomfortable from an idea that they ought to be purged.

Under whatever circumstances *stimulating* purgatives are given, their frequent repetition requires great caution. I have known cases in which an accumulation of irritating medicine in the bowels augmented inflammatory symptoms. A case has been related of annular contraction of the gut, not obliterating the calibre of the canal, in which an unavailing perseverance in the employment of drastic purges brought on ileus and other acute symptoms, which speedily terminated fatally. I have before me a reference to a published case of constipation in a boy twelve years of age. He had pain in the back a little above the sacrum, recurring at short intervals, and extending to the hips and legs. There was fever but no tenderness of the abdomen. He died in three days, but had been the subject of derangement of the digestive organs for eight months. After death the principal disease was found to consist of contraction of the ileum. The ring would not admit the end of the little finger, and ulceration had taken place. In this case a powder was prescribed, consisting of ten grains of scammony and fifteen of calomel. It is said to have been rejected; had it been retained it must have acted injuriously. After elaterium had been employed I have found the mucous membrane either violently inflamed or in such

a state of congestion as to threaten sphacelus. Its specific effects, and those of other drastic purgatives, may, perhaps, depend somewhat on their inducing this increased action through the mucous surface, but it must be evident that such effects require caution in the administration. Whatever might be requisite to subdue acute disease, or to carry off hydropic effusions, in the cases under consideration, there can be no warrant for the frequent employment of active purgatives. In the application of this class of remedies to cases of constipation, there must be a reference to the cause. The mechanical causes may be derived from foreign bodies as stercoaceous matter, pellots of worms, concretions of various kinds, and substances that have been swallowed; or they may originate from organic lesions: and other causes are derived from the state of the organs—spasm, inflammation, paralysis, deficiency of bile, of pancreatic juice, or of the succus intestinalis. It has also been imputed to too rapid absorption, to habitual negligence, to the use of dry and viscous aliments, too little drink, as well as to the abuse of acrid and irritating medicines. It will at once be seen that though different cases may present the common feature of constipation, the means required for its removal will be diversified. In some circumstances a large dose of opium will place the bowels in a state favorable to be acted upon by an aperient; in some the abstraction of blood will render the bowels, which before were extremely obstinate, easily susceptible to the action of purgatives; in some tonics are necessary, and in others the facility will be greatly increased by the application of a blister to the back. The following axiom has been given for determining where the obstacle to the passage of excrement exists, "*Quo silet borborygmus ibi quodcumque obstaculum.*"

In those affections of the digestive organs which arise from idiopathic derangement of the liver, and when organic lesion does not exist, the actions of the viscus may usually be restored by a due perseverance in one of the plans mentioned above, either alone or combined with exercise,

especially on horseback, and country air. When, however, the functions of the liver are deranged from remote causes, the means must be modified according to the nature of the cause. There are cases of hepatic derangement in which mercurials will avail nothing, indeed will prove irritants even in small doses. Deficient hepatic secretion, and torpor of the bowels, sometimes give way in a very striking manner to increased stimulation of dietetics. Their effect is, perhaps, most obvious in the temperate and recluse. An evening spent in cheerful society, drinking two or three glasses of wine, I have repeatedly known to act on the hepatic system in the most salutary manner. This, however, is advice it would be dangerous to give very generally, and where the habits of the patient cannot be relied upon, it is safer to supply the stimulus in a medicated form. Quinine, gentian, cascara or calumbo, will on many occasions promote the hepatic and other secretions concerned in digestion, and keep the bowels sufficiently open without the employment of purgatives, indeed when purgatives had failed to keep up steady action.

It is necessary, also, to bear in mind that it is not only habitual to some persons not to have diurnal excretions, but they are most healthy and comfortable in this state.

Under the use of some kinds of diet, too, there is less excrementitious matter than under others. It has been said that persons subsisting pretty much on rice have comparatively scanty dejections, and this circumstance has given rise to the idea of its properties being astringent.

When there is irritation or slight inflammation in the duodenum, mercury, I think, is usually injurious. If there exist chronic inflammation, local bleeding, and friction with the antimonial ointment, will be found beneficial. As to medicine in these cases, and also in cases of irritation, I know of none more effectual than a combination of sulphate and carbonate of magnesia in moderate doses, given in some aromatic water, or in the infusum aurantii: or the sulphate of magnesia with chalk mixture, made with some aromatic water. Sometimes the irritation has been so great, and the

bilious dejections so profuse, that the cretaceous mixture with laudanum was requisite. Irritation, however, is a very indefinite term; and when applicable to mucous membranes I believe that congestion or chronic inflammation generally exist.

The observations which have been made regarding the liver are applicable to those forms of dyspepsia which depend upon some derangement in the stomach or other viscera. If sympathetic, the primary disease must necessarily be removed before the sympathizing part will regain its healthy functions. The same means will not avail if the affection arise from cerebral plethora, or from some other disease in the head, as when its origin is renal or uterine. And if the gastric affection be idiopathic, some reference must still be had to the various disorders of which the organ is susceptible; and the fact that changes of structure are frequently indicated, at first, only by signs of functional derangement, should never be overlooked. Dr. Marshall Hall has very judiciously pointed out the necessity of distinguishing the *mimosis chronica* from the insidious approach of organic disease. Where there is a strumous diathesis the abdominal as well as the thoracic organs are involved, and in the treatment regard must be had to the constitutional tendency.

The diet of persons labouring under any variety of disease of the digestive organs is certainly of great importance, but like every thing else in the treatment this must depend on the peculiarities of the case. To have only one system for adoption in these cases is as perfect empiricism as to have only one medical prescription. The capabilities of the stomach must be regarded as well as the congeniality of the supply, and proper intervals must be observed; but I must maintain that many adults, and many more at tender age, cannot endure the long intervals of five or six hours, which some practitioners seem to enjoin almost universally. We observe this diversity in healthy children. I have lately been consulted respecting a youth at a preparatory school, a boy of most amiable mind and

industrious in his habits, who appears in perfect health, with the exception that about four hours after his meals he loses all power of exertion, his head throbs, and he is obliged to lie down. His eating a biscuit or dry crust prevents the attack. It is perhaps quite as necessary in the present day to caution against protracted fastings, as against super-abundant and too frequent supply.

A PRACTICAL AND PATHOLOGICAL INQUIRY, &c.

PART II.

ON THE EFFECTS PRODUCED UPON REMOTE PARTS OF THE BODY, AND UPON THE MIND, BY DERANGE- MENTS OF THE DIGESTIVE ORGANS.

HAVING adverted to several of the sources of derangement of the digestive organs, I shall proceed to point out some of the effects produced by that derangement on the functions of other parts, some of them situated remotely from the organs primarily affected.

Though the effect be powerful, it often happens that the primary disease has come on so insidiously that the real cause of the phenomena to which our attention is directed has been totally unobserved. How often do we meet with instances of general constitutional disturbance, of acute or protracted fever, or of disease in some particular tissue of the human fabric, the source of which had been some abdominal affection which had not excited the patient's notice. We shall do well, however, to carry with us the recollection of what has been already stated, lest we impute too much to these viscera. Under a variety of asthenic conditions the digestive organs may first suffer; but it does not necessarily follow that their derangements are the cause of affections in other parts subsequently found diseased. The latter, as well as the former, may depend upon the diathesis; and it is of great importance in practice to make this distinction.

The perusal of cases is tedious ; yet, perhaps, when correctly and perspicuously narrated, it is one of the most useful forms of acquiring information. I shall therefore pursue, on this part of the subject, the same plan as is adopted in the preceding part, adducing only such cases as have fallen under my own observation. They will exhibit no novelty, nor afford much information to men of experience ; but their details will, I hope, assist the young practitioner, and may tend a little to smooth difficulties which sometimes bewilder the understanding and try the patience of practitioners whose attainments both in diagnosis and practice are of the highest order.

Affections of the head from derangement of the digestive organs.

It has already been shown how intimately the stomach and head sympathize in disease as well as from injury. From the anatomical connexion which subsists between these organs we cannot wonder at their reciprocal influence ; and though it is my intention to confine myself principally to those affections of the head which admit of remedy, yet the same cause that induces derangement of function may lay the foundation of irremediable organic lesion, or may occasion alienation of the mental faculties. The phenomena, indeed, which are induced by derangement of the digestive organs, when considered in relation to the brain and nervous system are remarkably curious. A degree of derangement scarcely perceptible to the individual himself, not only produces actual pain in the cerebral structure, but occasions the most extraordinary illusions and susceptibilities. Some of these circumstances will be delineated in the following cases, and the experience and observation of every medical man will furnish him with ample corroboration of what has just been stated.

Nothing can more convincingly show the great importance of attention to the state of the bowels, where there is a tendency to constipation, than the very insidious manner in which affections of the head, supervening on those of the

bowels, sometimes occur. After a protracted state of constipation, attended with comparatively little inconvenience, the individual will sometimes observe that the memory is impaired, the sight obscured, the hearing dull, or the temper irascible, without any other indication of the head's being affected. These symptoms are not invariably connected with abdominal derangement. They often arise from affections of the heart, and other causes have an influence in producing them; but generally, I believe, they are preceded by some derangement in the functions of the liver or alimentary canal. When this derangement is not the direct cause, it heightens the susceptibility to the influence of other causes. The following instance tends to elucidate these remarks.

CASE 1.

Epilepsy from affection of the head consequent on deranged digestive organs.

Miss H—, about twenty-six years of age, generally enjoyed good health, with the exception of habitual costiveness. Though she kept some opening pills by her, yet from youthful inconsiderateness she treated the constipation lightly, and seldom took them except when really compelled. She was an assistant in a preparatory school, and in the holidays of 1825 she was twice seized with giddiness, but soon recovering she went on as usual, and returned to her situation at the appointed time. Her bowels now were somewhat relaxed. It not unfrequently happens that when morbid action is produced in the brain, however latent it may be, a considerable change takes place in the state of the nervous system, and occasions a corresponding alteration in the visceral functions. Bowels previously relaxed may become constipated, or if previously torpid, irritable, from effects chiefly induced by those viscera themselves. The seat of disease, and the centre of sympathy, appear to be transferred. Therefore, should disease occur in the head, or in any otherpart, apparently in consequence of

protracted derangement in the digestive organs, we are not necessarily to relinquish this opinion, if on the supervention of this secondary disease that to which we imputed it ceased, or wore a new aspect. A sympathetic affection (we repeat) often becomes a real disease, and a new series of actions may arise from it. It was so in the case in question; for as the affection of the head a little developed itself, and issued in epilepsy, the actions of the bowels underwent a complete change. No organic mischief had resulted; the attacks of epilepsy recurred at distant intervals, and now have ceased altogether, so that the lady is again undertaking the superintendence of youthful education.

CASE 2.

Cerebral congestion.

When commencing practice, twenty years ago, I was admitted to a friendly connexion with a merchant of some eminence, but for some time was not employed by him professionally. This gentleman became ill and consulted a physician of reputation and experience; and being then in habits of domestic intercourse with the patient, he often detailed to me the symptoms and progress of his malady, and the proceedings of his medical friend. He informed me that the disease was seated in the head, at the posterior part of which, for several months, he had experienced severe pain accompanied with rather peculiar sensations. Every step he took in walking, he said, occasioned him a distressing sensation in his brain, but whenever he stepped a little lower than he expected, as for instance into a gutter, he became confused, and for the moment was nearly insensible. His dejections were regular, but he experienced a sense of great heat in the epigastric region conjoined with flatulence. The measures to which he had been directed were designed to remove plenitude of the cerebral vessels. Twice he was cupped, he was repeatedly blistered, and was occasionally purged by mercurial and other cathartics.

Deriving no advantage from this course of treatment he

became exceedingly dejected and anxious. His mind had been active and vigorous, and had been occupied in many noble and generous projects; but he now became wholly incapable of mental exercises, and was harassed by the most painful forebodings of aberration of intellect.

As his family residence was in the village in which I then resided, convenience of access, in conjunction with the inefficiency of the plans hitherto employed, induced him to solicit my opinion and advice, which had been carefully withheld whilst he remained under the physician's care.

As the hepatic doctrine was prevalent in the school at which I was educated, no merit is due to me for ascribing all the painful and perilous symptoms attendant on this case to derangements in the chylo-poietic viscera, and it was easy to derive from the habits of intellectual exertion, and from the constitutional tendencies of the patient, a decisive sanction of this opinion. On examining the excretions too, it was evident that the biliary secretion was unhealthy.

The head, at the period of my being consulted, was in the state described. The back part of it felt as if it were tightly bound, and was painful. The vessels of the encephalon pulsated violently on the slightest exertion of mind, or from the least anxiety. The patient was of a rather full habit, and, till abstinence was enjoined upon him by his physician, he had been accustomed to drink his three or four glasses of wine after dinner, but had never been addicted to greater excess. He was directed to take five grains of the pilula hydrargyri every other night, and an ounce and half of the mistura cretae three times a day to allay gastric irritation. The first draught occasioned excessive nausea and vomiting, which continued for upwards of an hour. Whether any combination in the stomach contributed to this effect, or whether it was purely accidental, could not be determined, but the patient supposed that he had taken a very powerful emetic. On being assured that this was not the case, he was prevailed upon to repeat the medicine, and no unpleasant effects again resulted. Instead of continuing his plan of abstemious and low diet he was directed to live as usual,

watching the powers of the stomach, and confining himself daily to two glasses of wine.

In a few days the gastric irritation was allayed. He was conscious of augmented strength, and did not experience so much of the uneasy sensation in his head in walking. Instead of the cretaceous mixture he was now directed to take an ounce and half of bitter infusion with five grains of carbonate of ammonia twice a day, and after a little time a grain of calomel every other night was substituted for the former mercurial pill. At the expiration of three weeks the affection of the head was entirely removed ; and though he continued to suffer flatulence, and a degree of morbid irritation in the stomach for some time longer, it wholly ceased by perseverance in the same means.

I shall only remark on this case, that it demonstrates the efficacy of persevering in a mildly alterative plan in circumstances, which, at first sight, would invite to depletion, though wholly unavailing in such instances. If, however, cupping had not been previously employed, it would have been considered proper to abstract blood by that means or by leeches. It will sometimes be necessary to do this repeatedly to relieve the oppressed brain ; but its effects must be closely watched, and such measures combined, as tend to adjust the organs of supply. These views will be elucidated by the following case.

CASE 3.

On the 25th of November, 1817, a young man, about twenty years of age, placed himself under my care. He informed me that for nearly two years he had undergone a most distressing affection of the head, in consequence of which he had been compelled to relinquish a good situation in an eminent banking-house. His appearance was that of a tolerably healthy young man, and his understanding had not been neglected. He complained of throbbing in the temples, confusion of mind, and impaired memory. He was unable to stoop, and felt a sense of seyvere concussion of

brain from every sudden and unguarded step. His appetite was good, but he had been accustomed to live temperately and regularly. His bowels were constipated, his tongue rather coated, and he had considerable flatulence. There was some irregularity also in the pulse.

The inefficacy of depletion alone had been fully ascertained, but as there existed evidence of cerebral congestion without apparently impaired power, ten ounces of blood were withdrawn. Although syncope did not occur, yet the pulse became very irregular immediately after the bleeding, and appeared to indicate that there was no great power of adaptation in the heart. He was directed to take five grains of the blue pill every other night, and the following morning a sufficient quantity of the sulphate of magnesia to keep the bowels open.

After the blood had stood for some time the serum presented a milky appearance. This circumstance was observed in a case of irregular action of the heart already adverted to.*

On the 3rd of December he informed me that in all respects he was better. He was again bled to the extent of ten ounces, and was directed to continue the pills and salts as before.

For a considerable time he had been annoyed by a purulent discharge from his right ear, for which a solution of sulphate of zinc with some tincture of myrrh was prescribed.

On the 15th he again called upon me, reporting that for the two previous days his head had been rather more painful, the pain darting through the temples from one side to the other. Efforts of thought were still irksome to him, though not to such a degree as before the commencement of the present plan. The bowels were moderately open, and the tongue was clean. The pulse was 90 and somewhat irregular, but there was no palpitation or uneasy feeling about the heart.

Twelve ounces of blood were abstracted and the irregularity in the heart's action was increased, but not so much

* Vide page 101.

so as on the first occasion, a circumstance which showed that the force of the heart, and the powers of the nervous system, were rather improved.

He was now directed to take two grains of blue pill and three of aloes twice a day, and four days afterwards he informed me that he was greatly relieved, indeed, that he had not been so comfortable for many months. He persevered in the use of the pills which kept his bowels gently open. Early in the following month I met him accidentally, when he reported himself quite well.

In this case I apprehend there was a strong tendency to effusion into the head. The long continuance of congestion might lead to this, and the irregular action of the heart was rather indicative of its commencement; or, at least, the organ was reduced to a state of action rather favorable to it. The affection of the head was the most prominent feature of the case, but the constipation of the bowels had been the first symptom. Depletion of itself had failed to remove the cerebral plethora, and probably the best adapted means of regulating the digestive organs, unaided by such measures as tended directly to relieve the vessels of the head, would have been equally unavailing.

That bleeding and active purgatives will often speedily subdue cerebral congestion, where it arises from simple plethora, is unquestionable; but when the fulness of vessels is connected with an unhealthy state of the nervous system, the result of disorder in the digestive organs, the frequent repetition of those means will render the patient more susceptible of relapse. In the preceding case there was danger of essential mischief in the head; the young man had considerable strength both of mind and body, and was not the subject of morbid susceptibility; therefore the occasional withdrawal of blood was decidedly beneficial. However, such a case must not be drawn into a precedent in the treatment of symptoms, perhaps very analogous, but occurring in a person of a different temperament. The following instance will serve as a proper contrast, and it shows the common effects of bleeding in a nervous subject.

CASE 4.

A fish salesman, about thirty-five years of age, and of a plethoric habit, often consulted me respecting an affection of the head. When at market he was rather frequently seized with vertigo and loss of recollection, and being greatly alarmed at these attacks, he had been accustomed to seek immediate relief by bleeding or cupping. Although not addicted to any great excess in drinking, he pampered a craving appetite greatly too much; for not unfrequently he ate animal food three times a day, and sometimes four. The paroxysms of cerebral affection were usually preceded by acidity of the stomach, by excessive flatulence, by tenderness across the epigastric region, and by very dark-coloured and offensive stools. He was extremely hypochondriacal, and very apprehensive of death, and therefore whenever he became conscious of throbbing in the head, especially if it were accompanied with giddiness, he importuned for the lancet; and not seldom when his wishes were not complied with, he resorted to the copper, and ordered him to take away ten or twelve ounces of blood. Whenever this practice was repeated at short intervals, as for instance, of a few weeks, the affection of the head invariably recurred more frequently. Besides, it not unfrequently happened that the abstraction of blood either left him without any mitigation of the attack, or with an increase of throbbing and solicitude. Sometimes, indeed, he was benefitted by a moderate loss of blood; but the only method of affording any continued amendment was first to evacuate the bowels, and then to pursue an alterative plan. Five grains of the blue pill, or a grain of calomel taken every other night, with some bitter infusion and liquor potassæ twice a day, were of great service to him; observing, however, great moderation in diet. By these means he was not only relieved from present inconvenience, but he generally insured an immunity for some months; indeed, this immunity usually lasted till the digestive organs became unable to perform the excessive duty to which the patient's improper habits subjected

them, and then morbid susceptibility, and terror of conscience, greatly aggravated his other symptoms.

In the early part of my attendance on this gentleman, he told me that he had been accustomed to calomel, and often took it in doses of two or three grains every other night : but under the continued use of mercury in this dose, the stools never ceased to be green and slimy, and consequently the general health was not much amended. Sometimes it brought on pain in the liver which had not previously existed. It has already been observed that where there is a tendency to chronic hepatitis, though pain had not been suffered, the symptoms will be rendered more acute by the free exhibition of calomel, and a great degree of constitutional irritation may be induced.

In a paper published in the Medical Repository a few years ago, I pointed out some of the evils arising from calomel and scammony, and other stimulating and exciting purgatives, in certain chronic affections of the digestive organs. In consequence of that article I was called upon and consulted by an individual who related the following particulars.

CASE 5.

Impaired memory from mercury in excess.

The gentleman informed me that he was a medical student, about twenty years of age, from a provincial city, and that after having tried measures recommended to him in the country, he had been under the management of the late Dr. Curry. The doctor attributed all his complaints to functional derangement of the liver, and prescribed medicine of which a nightly dose of calomel formed the essential part. The patient long persevered, the mouth became affected, and moderate ptialism was kept up under the physician's direction. Several months elapsed without advantage, indeed, the young man found that in addition to the disordered state of the digestive organs, the head became painful and the powers of memory were greatly impaired.

When this gentleman called on me he had desisted from medicine for some time except taking an occasional aperient to correct an irregular state of the bowels. He suffered a degree of flatulence, and occasional acidity, and his appetite was capricious, though in every respect these affections were less troublesome to him than when he was under the use of mercury. The prominent subject of complaint with him now was his loss of memory, a circumstance he wholly attributed to the excessive employment of mercury. He said that formerly he enjoyed considerable retentiveness of memory, but now he could scarcely retain any thing, and topics with which previous to the use of mercury he had been quite familiar, had totally escaped from his recollection. He was also constantly annoyed with tinnitus aurium.

It was still evident that the functions of the liver were in a great degree suspended, and therefore he was recommended to use the pilula hydrargyri in the dose of three grains every other night, and to take forty drops of the nitro-muriatic acid twice a day in some decoction of sarsaparilla.

At the expiration of a month he informed me that the functions of the liver were restored, that the affection of the head was greatly mitigated, and that the powers of the mind were developing. He therefore needed no other incitement to persevere, but an intimation was given him that the occasional omission of the mercurial might now be advantageous.

The preceding facts were rendered more important from the circumstances of another case relative to which I was consulted about a week afterwards, the particulars of which I shall very briefly relate.

CASE 6.

A very intelligent young lady, about twenty-six years of age, had combated all the difficulties incident to a delicate constitution, and, being the only daughter of a respectable tradesman, no means had been spared to effect her restoration. It was evident that the digestive organs were greatly

deranged; and supposing that she had disease in the liver she was attracted by the specious publications of a gentleman who then resided at the west end of town, but who has recently migrated to an invalid city. She had been familiar with disappointment, for she might truly be said to have "spent much on many physicians without benefit." This, therefore, was a common feeling, but she expressed very great regret at having adopted the advice of this gentleman, "because" said she "he gave me so much mercury as to *impair my memory* as well as to injure my constitution." Although decisions of this nature are involved in much uncertainty, yet here there was sufficient evidence to warrant the inference. It is true that this lady derived only temporary advantage from any plan of treatment. Her constitution clearly indicated a strumous diathesis, and the affection of the digestive organs partook of it. To a temperament of this kind mercurial excitation is particularly unfriendly.

I did not attend this lady professionally till the time alluded to, and as it was adviseable to send her into the country she remained under my care but for a very short time. That short time, however, enabled me to ascertain that she was greatly irritated by mercurial remedies, except when they were exhibited in the mildest forms, in very small doses, and at distant intervals. Whenever she took as much as two grains of calomel, or when a single grain was given for two or three successive nights, there was either a great deficiency in the secretion of bile, or the secreted fluid was unhealthy. On the contrary, when three or four grains of the hydrargyrus cum creta, or of pilula hydrargyri were given every third night, the functions of the liver were greatly assisted.

When there is a prevailing disposition to cerebral congestion, occasioning violent pain and throbbing in the head, accompanied with sickness, I have known permanent counter-irritation an important auxiliary in the treatment.

CASE 7.

Advantage of counter-irritation.

Some years ago I was consulted by a young lady who every week or fortnight was attacked with most violent headache, so that whilst it continued she was compelled to seclude herself from light and noise, and to lie in bed during the whole day. The bowels were generally confined, and during the attacks the vomiting was so constant that she threw up every thing taken into the stomach. From the habitual constipation there was reason to believe that the cause of the cerebral affection was seated in the digestive organs; but purgatives were of no avail, nor was the abstraction of blood apparently beneficial. Somewhat wearied by efforts to benefit this young lady, I proposed the formation of an issue on the upper arm; and the taking of a grain of calomel every third night. This plan was completely successful. From within a week after its institution the bowels became more manageable than they had been before the establishment of counter-irritation, the calomel produced a much more salutary effect, and she remained perfectly free from the attacks of cephalalgia.

I shall add another case of a more severe description.

CASE 8.

A young man whose bowels were habitually costive, and in whom the biliary secretion was very dark-coloured, became the subject of cerebral plethora. This state of vascular plenitude manifested itself sometimes in rendering him morose and reserved, sometimes in exciting dull headache, and at others a severe headache accompanied with pulsation. He had repeated attacks of mental derangement, and twice he became the subject of furious mania. During these paroxysms he was repeatedly bled either from the arm or by

leeches; but when much lowered, even if the more vehement symptoms were moderated, his bowels were afterwards adjusted with difficulty, and a much greater susceptibility to relapse, from the most trivial causes, was observed, than if the paroxysm were overcome by a very moderate abstraction of blood, or by applying cold lotions to the abraded scalp, and purging. Blistering the scalp had been repeatedly useful to him, but this could not be made a permanent measure. In the intervals of the attacks, every thing that diet and mildly alterative medicines could effect was tried to prevent a recurrence, but in vain. A seton was then inserted in the back of the neck, paying attention as before to the state of the digestive organs by unirritating doses of mercury and an occasional aloetic pill. Nothing could be more satisfactory than the result. The functions of the brain were gradually developed, and those of the digestive organs were regulated with greater facility. With the exception of slight eccentricity the patient now enjoys that which is the greatest of earthly blessings,—*mens sana in corpore sano*.

In both these cases the affection of the head appeared to originate in the derangement of the digestive organs, but afterwards reaction occurred. Under these circumstances we often have cases difficult of management, and from an excited state of the nervous system may be led to suspect the existence of great vigour where it is only simulated.

The pathological principles alluded to in the preceding observations, showing the reaction of cerebral on abdominal affections, may be still farther elucidated by the ensuing facts.

CASE. 9.

Miss M—, æt. 19, residing a few miles from town, came to me on the 10th of November, 1820. She had been indisposed for two years, but during that time the catamenia had usually been regular. The bowels were habitually confined. She complained of pain sometimes in the right hypochondrium and at others in the left. She had a sense of

constriction across the chest, cough, and fever. The head was generally very painful and confused. At the time of visiting me she complained also of occasional giddiness, and of watchfulness and unpleasant dreams at night. The pulse was very quick, the tongue furred, the mind dejected, and the appetite capricious. She could give me no account of the appearance of the excretions.

From her recital it appeared that bleeding and other appropriate means had repeatedly been employed, but they had not been adequately persevered in, nor used with consistency. There had been a want of settled principle so essentially necessary in the treatment of chronic diseases.

It appeared to me that the state of the head was kept up by the disordered condition of the digestive organs, but that the disturbed functions of the head now contributed in their turn to increase and perpetuate irregular action in the viscera primarily deranged. In conformity with this opinion the application of six leeches to the temples was directed; and she was advised to take five grains of the blue pill every other night and saline aperients conjoined with infusion of calombo three times a day.

On the 18th she paid me another visit, and reported herself very slightly better. The dejections she found were black, and were extremely fetid. The bowels, it appeared, were still scarcely open enough.

R Pil. Hydr.

Ext. Coloc. Comp. āā gr. v. M. ft.

pilulae ij. alterna quaque nocte sumendæ.

A mixture nearly the same as that formerly prescribed was directed to be continued, and the leeches to be repeated.

On the 30th I again saw her. She had persevered in the plan and was much better. The head was greatly relieved. The countenance, previously dejected, was now cheerful, and the cough had ceased. The bowels were open but not irritated. The stools were more natural in colour. The frequency of pulse had diminished and the appetite was

more uniform; but she continued to feel some tightness across the chest.

The necessity of caution with respect to diet, both as to quantity and quality, was urged upon the patient. She was advised to repeat the leeches and to continue the same medicines.

On the 13th of December she called on me again with the same favorable report, but the bowels were not even now adequately open. A little tincture of senna was added to the mixture.

On the 22nd she reported herself slowly amending, but now complained of occasional pain in the right scapula. The head was nearly well, but the bowels had become irritable, and there was occasional acidity in the stomach, therefore the plan of proceeding was varied to five grains of the blue pill every other night and the following mixture in the day.

R Liq. Potassæ 3iss.

Tinct. Card. Comp. 3ss.

Infus. Calombæ 3xi. M. Sumat

cochl. maj. iij. bis vel ter die.

From this period her improvement was steady, and in about a fortnight she was quite well.

CASE 10.

Mr. C. W. also nineteen years of age, very tall, and not generally strong, consulted me on the 19th of June, 1825. He informed me that his stomach and bowels for some time had not been in a healthy state, and now he complained of violent oppression at the chest and epigastrium, with a somewhat hysterical sensation in the throat. The bowels were confined. He also had violent pain in the head, and occasional plunges through it. The pain was increased by exertion of body, and by stooping, rather than by mental exercises. Light was irksome, his tongue was coated, and his

pulse not above 60. Leeches and purgatives, a blister between the shoulders, and keeping the head cool were first resorted to; but at the expiration of a fortnight or three weeks he had gained little. About ten ounces of blood were then withdrawn by the lancet. It produced syncope, but the advantage was great. The sense of oppression at the chest and epigastric region, and the hysterical sensation in the throat nearly left him, being felt only at intervals, and the head itself continued much better. Still he remained in a weak state. On being occupied in the counting house for a short time, or walking only a short distance, or ascending the stairs, brought on pain in the head. His rest was rather disturbed, his tongue remained furred, the bowels were torpid, and the pulse continued slow. Not unfrequently the annoying sensation in the throat came on after eating. He was taking at this time some blue pill with cathartic extract every other night, and a tonic mixture rendered slightly aperient, in the day. It was difficult to act on his bowels, and these means were not too powerful. Though he rather wasted in body yet the symptoms were on the decline, and he had become so much better in August as to undertake a journey to Ramsgate. After spending a fortnight at this watering place, he returned home greatly amended. Nevertheless, he still had an unpleasant sensation in the throat, nor was the head wholly free from pain, and he sometimes noticed considerable throbbing of the whole arterial system. I did not consider him well enough to resume his occupations, but advised that whilst paying great attention to diet, and to the bowels, he should return to the coast. He went to Brighton, whence he came home, at the expiration of about three weeks, quite well.

This state of the constitution in young persons is very common, and often gives rise to perplexing as well as painful derangements. They have not yet acquired the full vigour of manhood. The circulating system is easily disturbed, and owing to the strength of youthful passions and feelings the nervous system is exposed to powerful excitements. The appetite is keen, and often indulged

beyond the powers of the stomach to appropriate. The bowels are constipated, partly perhaps from neglect, though generally from deficiency of hepatic secretion: whilst neither the quality nor the quantity of the ingesta are much regarded. The head participates not only from the common relation subsisting between it and the gastric organs, but likewise from the powerful and heightened feelings of which youths, especially those who do not enjoy robust health, are often the subjects: and in general, owing to nervous irritability, the heart palpitates violently even from slight emotion or exertion. In the young female this state is often attended with irregular action of the uterus. The affection of the head frequently presents so much the form of acute disease that we may be tempted to employ unwarrantably active measures. The abstraction of a little blood may be necessary, but it is in reality an asthenic affection; and whilst bleeding is employed to remove oppression or to lessen one cause of nervous excitement, such means must be adopted as tend to strengthen the system without stimulation, paying at the same time great attention to the excretions. Mineral acids, bark or bitters combined with a little neutral salts, or the infusion of rhubarb, I have often found of great service; and where a more active purgative is needed the pilula aloës composita is very useful. The quinine is an excellent medicine under these circumstances. It will often be found on relieving the head, and gently exciting the action of the liver by a few grains of a mild mercurial preparation, and strengthening the system, that the constipation will be overcome without any necessity for aperients.

The following pills have been repeatedly and extensively beneficial in the state alluded, particularly among my young female patients:

R Pulv. Aloës
 Ferri sulphatis $\text{a}\bar{a}$ gr. xxv
 Pulv. aromat.
 Mellis $\text{a}\bar{a}$ gii Misce et divide in
 pilulas xxx.

Two of these may be taken twice a day if they do not irritate the bowels.

Oneirodynia from derangement of the digestive organs.

That examples of that form of illusion included by Cullen under the appellation oneirodynia, and by Good (in his excellent treatise on nosology) under that of paroniria, arise from repletion, and from derangement in the functions of digestion, will not be questioned. The fertility and vividness of the fancy under certain forms of indisposition is not merely calculated to amuse the social circle, but affords a subject of the deepest interest to the philosopher. Sometimes even in wakeful hours, aided by the solemnities of loneliness, but more frequently during the season of disturbed slumber, the forms of persons are distinctly portrayed before the mind, and life and the power of rational intercourse are imparted to these ideal creations. Although instances of idle and wandering abstraction, of illusion during sleep, of talking and of walking in sleep, and of nightmare, are most frequently dependant on gastric or intestinal irritation, yet they are sometimes occasioned by idiopathic affections of the head, and not unfrequently some of these symptoms are the precursors of insanity.

I find the following case in my minute book. It is entitled at its commencement *oneirodynia stomachica*, but in the sequel the patient became deranged, and from the post mortem examination there is reason to suppose that whatever influence the abdominal viscera may have had at the early part of the cerebral affection, the condition of the head was in no small degree dependant on organic disease of the heart.

CASE 11.

Disease in the brain, and contracted annulus venosus.

Miss P—, thirty-six years of age, of a dark complexion, and having a dejected and ill-tempered countenance, complained of uneasiness in the stomach, with extreme

depression of mind, and excessive irritability. She had frequent sensations of heat and fulness in different parts of the body, but when these parts were touched by another person they did not communicate any sense of heightened temperature. The bowels were rather confined, the appetite was impaired, and the eructations were acid. There was pain in the forehead, and occasionally slight confusion of mind. The feet usually were cold. The pulse was 96 and moderately soft. Whenever she attempted to sleep she was roused by violent startings, occasioned by the most horrific dreams and visions. She had tried blisters and some domestic remedies without any good effect. Under these circumstances I was consulted on the 19th of July, 1813, and recommended a grain of calomel to be taken every other night, and some infusion of roses and sulphate of magnesia three times a day. With the first pill she took a saline draught, and did not commence her mixture till the following day. She enjoyed a more comfortable night, and seemed more tranquil in the morning. The bowels had been moved once; but they were afterwards kept freely open by the neutral salts. By the 25th she was so much better, in every respect, that I discontinued my attendance.

I did not see this lady again during her life, but having heard of her decease on the 29th of September, I obtained permission to examine the body. Before proceeding to the inspection the following report was given me. After my attendance in July she left home for awhile and seemed much better, but at length the illusive visions returned; she complained of violent pain in the vertex but extending to the forehead and occiput; sometimes affecting one part more than another. She had frequent flushings, and for months no menstruation. Though constipation was so evidently connected with the early symptoms the bowels were reported to have been perfectly regular during the latter period, confirming a remark already made on the changes which take place on the developement of cerebral disease.* At one

period the powers of the mind were so bewildered, even in the day, that it was judged necessary to confine her, and she was in a lunatic asylum for three weeks. From this period to the time of death she did not regain the correct exercise of her mental faculties.

Examination. The dura mater was almost inseparably connected with the skull, particularly throughout the upper part of the head, and the vessels in the membrane were unusually turgid. The pia mater was slightly inflamed under the os frontis, to about the extent of the palm of the hand, extending on each side of the longitudinal sinus. There were likewise patches of inflammation or congestion in other parts of this membrane.

The peritoneal coat of the intestines was slightly inflamed. The spleen was enlarged to double its ordinary size. The mucous coat of the stomach was reddened by petechiae and ecchymosis especially at its cardiac orifice, but the same appearance extended some way up the oesophagus. The pericardium contained about an ounce of fluid. The annulus venosus of the left side was contracted to a mere fissure about half an inch in length, and when dilated was not capable of admitting more than the little finger. The circumference of this aperture was considerably thickened, and the carneæ columnæ were contracted. The lining membrane of the auricle was more opaque than usual, clearly evincing that chronic inflammation had existed. The aortic valves were so much thickened as to prevent their having any valvular effect.

This is not the only case in which subacute inflammatory action in the brain had apparently been excited in consequence of derangements of the digestive organs; and the affection of the head, commencing in disordered action, we have already said, may end in serous effusions, thickening of the membrane, or other organic lesions: occasionally, too, the disease advances so as to destroy the natural structure, with but slight expression. The disease in the heart appeared to have arisen from chronic inflammation as well as the changes in the brain, and though the impediment to

the transmission of blood through that organ had aggravated the cerebral and abdominal affections, it seems probable from the history of the symptoms that derangement in the organs of digestion had laid the foundation of the lesions in other parts.

Disorder of the digestive organs, as a cause of insanity, has been well appreciated, I shall therefore only add one example in which it evidently was the exciting cause.

CASE 12.

On the 26th of March, 1812, I was requested to see Mrs. B—, fifty years of age, and remarkably loquacious. Though extremely emaciated and weak she ate with an unusual appetite. She inherited a disposition to mental alienation, for her mother was for some time confined in a lunatic asylum, and in other branches of the family a tendency to the same disease had been evinced. For some time she had complained of pain about the epigastric region. The intestinal evacuations were very irregular and fetid. The head during this time felt giddy, and the memory was impaired. The lady with whom she lived began to notice many inconsistencies in her conduct, and also that she was much inclined to sleep. She likewise observed spasmodic twitchings of the muscles.

When I visited her the pulse was 90 and strong, and the tongue covered with a brownish fur, and moist. Pain and tenderness were felt about the stomach. The bowels were relaxed and the dejections offensive. She complained of headache and giddiness, the eyes looked wild, and there were other evidences of mental disturbance.

Adhibeantur hirudines xii, temporibus, et impo-
natur empl. lyttæ inter scapulas.

R Hydr. Submurr. gr. vi,

Extr. Col. Comp. 3ss,

Sapon 9j. Misce et divide in pilulas

xii; quarum sumat iij. alterna quaque nocte.

Small doses of Epsom salts were taken in the intervals.

On the 28th I was informed that she had passed a sleepless night, talking incessantly and without connexion, and the excrements were voided in the bed. A blister was applied to the head, and she continued the mixture and pills.

After the application of the blister to the scalp she became both calm and rational. She expressed herself as feeling extremely weak, and as having much pain in her head. She took some nourishment and her strength increased, but after continuing in this state for a few days she relapsed into her former condition, with a lucid interval every other or third day. The pulse varied between 80 and 100, but was somewhat irregular.

By the 7th of April the tongue which had been dry became moist and clean, and the stools ceased to be involuntary.

The blister on the head was still kept open. On alternate days she took a dose of calomel and jalap; and a lightly strengthening mixture every six hours.

Although rational on the 9th the following day the mind was confused, but not so entirely as on former occasions, and she was less disposed to talk. On the 11th she appeared much better. She had improved in bodily strength. The appetite was good, and the pulse, though weak, was regular.

She was now allowed to take half a pint of porter and one glass of wine daily.

From a few days subsequent to this report the faculties remained unembarrassed. She persevered in the use of her tonic medicine, until her strength was recruited.

By the end of April she represented herself as quite well, with the exception of feeling weak. She particularly expressed herself relieved of the complaint at her stomach from which she said that she suffered much for a long time prior to being laid up.

Where there exists the hereditary disposition to insanity, no circumstance is of greater importance than maintaining healthy actions in the digestive organs. Derangements in them form a most fertile source of cerebral and mental disorder.

The following case of illusion is of a milder character, but is very descriptive of the common source of apparitions.

CASE 13.

Apparitions.

On the 8th of February, 1808, I was consulted by an individual, who being unable to give any very explicit account of his indisposition felt a little embarrassment on presenting himself for my advice. He was conscious of some affection of the head, but it was so exceedingly slight that he regarded it as scarcely worthy of notice. The circumstance that most annoyed him was the nightly appearance of apparitions. He distinctly saw the figures of persons at his bedside, and held conversations with them; and he assured me that if his judgment had not opposed the idea he should have considered his house as haunted.

On careful inquiry and examination I found that the man's tongue was somewhat coated, that his excretions were of an unhealthy colour, and that his bowels were rather irregular; therefore, I had no doubt that the ghostly visitors were *bilious phantoms*. He was advised to take six grains of the blue pill every other night, with a slightly stimulant bitter combined with a little carbonate of ammonia twice daily. A blister was also applied *interscapulas*.

After having taken two doses of the pills he suffered no farther inconvenience from visions.

In this instance the evidence of hepatic derangement was but slight, not enough to attract the observation of the patient himself; but the analogy of the circumstances to numerous cases of the same kind, in which similar phenomena had occurred from disorder in the liver, led me to attribute the nightly illusion to that cause. The speedy removal of the annoyance, under the simple means employed, confirmed the inference which had been deduced. Though in humble life the patient was an intelligent man, and neither credulous nor superstitious. He therefore wisely inferred that what appeared to be a deviation from the

ordinary course of nature must necessarily be owing to some error in his own perceptions. It will be found, I believe, that derangement in the functions of the digestive organs is the most prolific source of the phenomena of ghosts, usually ascribed to supernatural agency. Their appearance, indeed, is frequently connected, in the most plausible manner, with events. This often happens from the mind's having dwelt in earnest and solicitous expectation of the event; or it might have resulted from accidental coincidence; but much more frequently they are connected, *post factum*, by persons who delight in telling what is marvellous.

CASE 14.

On the 11th of June, 1817, I was consulted by Mrs. E—, about forty-three years of age, who for eight months had been unwell. She experienced pain and soreness in the epigastric region. Sometimes her countenance was sallow. She had occasional sickness, and pain between the shoulders. The urine was sometimes high coloured, at others it presented a milky cloudiness. The alvine excretions were regular, the appetite was moderate, and there was no impediment to respiration. She was excessively disturbed at night by phantoms. Though the functions of the uterus continued regular, an eminent physician-accoucheur, under whose care she had been for a long time, attributed the affection to what he termed the "change of life," but no advantage had been derived from the various plans resorted to.

Suspecting the symptoms to arise from hepatic turgescence, with congestion in the vessels of the stomach and bowels, she was recommended to abstain from animal food as well as from all fermented liquors; and to take two grains of calomel at bedtime, and a dram and half of Epsom salts twice a day. On the following day the bowels were opened eight times, and the feces resembled yest. She afterwards had very little pain and felt sick only once, but great tenderness yet remained in the epigastric region.

On the 13th the pill was repeated and she continued the salts as before, and on the 17th she reported herself nearly free from pain in the stomach. The soreness in the epigastric region had abated and the bowels were moderately open. She experienced some pain, however, in the back and left hypochondrium, and she had still but little appetite.

The state of congestion having apparently become considerably lessened, she was directed to take a grain of calomel every other night, and twice a day she took some bitter infusion with a little sulphuric acid, (allowing some hours to intervene between taking the acid and the mercurial) and was permitted to eat a little animal food. In a few weeks she was perfectly well, emphatically describing herself as being, in point of health, much beyond her expectations.

In cases of this kind a few doses of calomel in the quantity of one or two grains at rather long intervals are beneficial, but it generally becomes necessary to reduce the quantity, or to substitute a milder preparation of mercury. The following case, somewhat analogous to that just related, demonstrates that sometimes when even a single grain of calomel cannot be taken with impunity, a much smaller dose, taken perseveringly, may be of essential service.

CASE 15.

On the 3rd of November, 1818, I was consulted by a gentleman about sixty years of age. He informed me that for many weeks he had experienced tenderness about the epigastrium, but more particularly about the situation of the pyloric extremity of the stomach and the duodenum. He had dyspepsia, occasional vomiting, prurigo podicis, and constipation. The stools when passed were not only of an unhealthy colour, but were smeared with mucus. His countenance was rather sallow, and there was a tinge of yellow in the conjunctivæ.

I inferred that there existed turgescence of vessels about the pylorus, and perhaps in some degree in the duodenum, but having observed that where there is much irritation

about the termination of the biliary ducts there is generally a tendency to bilious diarrhoea, I inferred that congestion occupied the peritoneal rather than the mucous coat. There was reason to suppose that the muciparous glands of the colon were enlarged, and that there was deficient action of the liver.

Before consulting me he had tried the plans of two or three eminent men, and having been disappointed in the result he was little disposed to persevere with regularity in any new system. Nevertheless, he required my attendance upon him, and at intervals within the succeeding three months he had gone the common round of alteratives, purgatives, and of light tonics, without deriving any benefit. At the termination of this period he had frequent headache, tenderness in epigastrio, and capricious appetite. His rest was unrefreshing, his legs ached in the morning, his spirits were depressed much below their usual standard, and he had considerable tremor in his hands. During the whole period it had been observed by the patient that even a grain of calomel made him feel very uncomfortable, by inducing considerable languor, and somewhat increasing the tenderness at the pit of the stomach.

Early in February the patient and his friends became increasingly solicitous as to the issue, and the former now resolved to detach himself wholly from business, and steadfastly to pursue any measures enjoined upon him. It was satisfactorily ascertained that there was no enlargement of the liver, and though disordered action was now of long continuance, it was still hoped that no organic lesion had ensued. He was directed to take half a grain of calomel every other night, and the following draught twice a day :

R Potassæ subcarb. gr. v,
Infusi calombæ
Aquæ pimento à à 3vj. M. ft. haustus.

He was advised to take exercise on horseback, to eat light but nutritive food in moderate quantities, to abstain from

salted meat and unboiled vegetables, and not to exceed two glasses of wine daily. He pursued this plan for five weeks when he felt perfectly well, and enjoyed a long season of good health. This gentleman had been the subject of similar attacks before, and had sought the relief of the head by cupping, but he had not derived much advantage from it.

The following case is of a much more complicated nature but deeply interesting. It tends to develope the progress of disease in its invasion of successive parts, and will be found to inculcate some hints of great importance in practice.

CASE 16.

Amaurosis from an affection of the head, consequent on abdominal disease.

Mr. S—, fifty-two years of age, had enjoyed remarkably good health, and had seldom been confined except under an occasional attack of lumbago. He had been temperate and regular in his habits, and moderately active in his pursuits. During the last two years, however, he had occasional intimations of dyspepsia. The appetite, at times, was capricious, and the bowels inactive. The means he employed to obviate these inconveniences were of the mildest character, and usually afforded him temporary relief. Early in the year 1826 he became the subject of more severe indisposition, the leading features of which were derangements in the digestive organs, particularly of the liver, with some tenderness in the region of that viscus. This state was accompanied with pains which were regarded as rheumatic, affecting the head, shoulders, loins, and chest. These symptoms were attributed by him to catching cold. A dentist had extracted a loose tooth for him on the Saturday, the socket of which continued bleeding, and on Sunday he came to town, the day being cold, without a great coat, having lost a considerable quantity of blood within the preceding twenty-four hours.

On the 7th his illness commenced. After an attack of lumbago the right temple became exceedingly painful, then the left, then the shoulders, and ultimately the pectoral muscle of the right side, and the flexor muscles of the arms. He described them as gnawing pains, aggravated at night. His pulse was rather quick, though the symptoms of pyrexia certainly were slight. The pain of the head he described also as seated in the external parts, and not attended with throbbing of the encephalon, tinnitus aurium, or giddiness. I have been thus particular in describing these painful affections, because, notwithstanding their apparent origin and character, they were not regarded as rheumatic by an eminent physician who was consulted. It is highly probable that the affection of the head, at least, and perhaps of some other parts, was neuralgic.

In the treatment attention was directed to the state of hepatic secretion, leeches were applied to the right hypochondrium, and a moderate abstraction of blood was made from the arm. The acetum colchici was administered, and fomentations, as well as solutions of opium, were applied to the head during the more distressing paroxysms of pain.

At the expiration of little more than a fortnight the pain ceased, and in a few days the patient ventured into business; still, the progress of restoration was very slow. His appetite remained fanciful; his bowels irregular, his sleep was interrupted, he was tender in the epigastrium, and his muscular powers were but feeble.

At this period he observed that his sight was not quite so clear as formerly, for though after looking towards an object for a short time he could see distinctly, yet the eyes were longer in adapting themselves to changes of light than usual; and he was constantly annoyed by muscæ volitantes in both eyes.

These illusions were regarded as a nervous derangement, and the patient was led to hope that they would disappear as he gained strength. He now lived as usual, eating moderately of animal food once a day, and taking a couple of glasses of wine after dinner. He was recommended to seek

a change of air, and went to Hastings on the 23rd of May. Here, and at other places on the coast, he spent about five or six weeks. His general health a little improved, but whilst absent, when about a fortnight had elapsed, he began to experience violent pulsation in the left side of the head, the muscae remaining. The illusive appearance in the right eye assumed the form of a crab's claw, and was more permanent than it had previously been. After this time these dark spots somewhat lessened, and in writing to me he observed, "With respect to my sight, and particularly those dark bodies which appear to float before my eyes, I am perfectly satisfied with your opinion, nevertheless, in conjunction with the dimness of my sight it renders me most uncomfortable. The appearance of the dark bodies has, however, been somewhat diminished since I wrote last."

"With respect to my strength I am quite warranted in saying that I have acquired but a small addition, for if I attempt to walk up a hill, however slowly, my knees soon begin to ache, and the pulsation at my temples increases to such a degree that I am obliged to stop and rest, and this latter circumstance frequently takes place on turning round my head or walking up stairs." In another part of his letter he stated that the pulsation was most severe in the left side of the head, along the parietal bone. I advised him to be cupped, to discontinue his wine, and to return home if his head were not speedily relieved. I did not hear from him again within the time of his absence. He returned to Camberwell on Friday the 21st of June, much the same in general health, and the eyes no better. About the middle of the week following he found the right eye becoming more dim, and in the course of the night of Friday, June 28th, it became nearly dark. I was requested to see him on the 30th. There was no appearance of inflammation, but very slight opacity was observable in the pupil. He informed me that the throbbing in the head had not been quite so violent, and from an unwillingness to apply to a stranger, he had not been cupped. He still complained of pain and

pulsation along the left side of the head, but there had been no increase of this affection to explain the increased dimness in the opposite eye. The abstraction of twelve ounces of blood by cupping was immediately ordered, a blister was afterwards applied to the nape of the neck, and grain doses of calomel, with some tartarized antimony, were directed to be taken every six hours.

On Monday Mr. Travers saw him. The morning of that day the eye had become inflamed for the first time, and was tender on pressure. There was great discoloration also of the whole eye. Vision was so impaired that he could only distinguish light from darkness, and the sight of the other eye was rather obscure.

Mr. Travers viewed it as a very formidable affection. He ordered him again to be cupped, and concurred in the use of calomel and antimony till mercurial action should be produced. He advised, however, that an opiate should be given at night to counteract inordinate disturbance of the bowels. It was also requisite for the purpose of allaying the extreme perturbation of mind from which a painful state of watchfulness resulted.

In about four days the patient was salivated, but without any amendment of sight. The ptialism was kept up mildly till another interview with Mr. Travers, when some improvement of diet was agreed upon. A consultation was now proposed with Dr. Farre. Some impediments occurred in effecting this purpose, and in the patient's solicitous and susceptible state, the delay occasioned great agitation of mind, and on the Thursday evening the other eye became so dark that he was unable to recognize his friends, or to make out any thing placed before him.

The right eye was still much deeper coloured than natural, but no appearance of inflammation remained. The left eye looked healthy, but the movement in the iris was very indistinct. Dr. Farre regarded it as an example of *asthemic amaurosis*, and prescribed tonics. At this time the patient was fully mercurialized.

Within a few days after the adoption of the tonic plan

the morbid colour of the right eye disappeared, and very slight motion was perceptible in the iris, whilst the iris of the left eye became decidedly more sensible and mobile. The patient's general health amended; the mercurial action declined, and all appeared going on well. At this time, however, a new source of uneasiness arose. I was desired to see a swelling on the back, and found an indolent carbuncle the size of a walnut between the shoulder and neck. It was neither much inflamed nor irritable. I cut freely through its hard and brawny texture; the incision gave but little pain till the scalpel fairly reached the bottom of it.

There were, also, one or two red pimples on other parts of the back, and within two days one of them had extended very greatly. It was seated near the right scapula, in the fleshy substance of the back, but the inflammation extended far over the adjacent parts. A small dark vesicle appeared on its surface. I cut deeply into it, which gave him great relief both from pain and tension. This was done on Friday the 21st of July. On Saturday he felt easier, though still suffering considerable pain, and the wound looked very dark, and bled rather copiously. He was taking decoction and tincture of bark with sulphuric acid.

Early in the next week it was evident that the sensibility of both the eyes had decreased, especially that of the left. The iris could scarcely be observed to move, and the membranes had become discoloured as were those of the right a week before.

On Tuesday and Wednesday the inflammation was somewhat lessened, but along the edge of the scapula the part was black and vesicated. The slough in the upper carbuncle did not separate kindly, and, notwithstanding free and repeated incisions, the disease was advancing.

At this period a circumstance occurred which seriously interfered with the progress. He sent on the Thursday morning to request that I would come down prepared to take out two teeth. They were hanging very loosely, though rather firmly adherent to the flabby gums. I left him comfortable, but soon afterwards the upper gum began to

bleed, and continued to do so for several hours. I was sent for, and immediately suppressed it by introducing small compresses of lint very tightly into the socket. Feeling that loss of blood, in a state of broken health, and with extensive sloughing, was an alarming occurrence, I waited an hour, and all remained secure. However, before bedtime it was perceived that blood was again oozing, and increasing in quantity, so that by eleven o'clock the hæmorrhage was considerable, and the patient was greatly irritated by the accumulation of coagula in the mouth and fauces. The lateness of the hour induced an intimate friend to call on a respectable medical gentleman residing near, who visited the patient, and cheered him with the assurance that the bleeding would be immediately stopped by a styptic he would supply. A six-ounce vial of diluted mineral acid was sent with instruction to wash the mouth with it frequently. Had the attendants been directed to moisten lint and apply the acid directly to the spot, good might have resulted; but under the directions given the patient gargled his mouth, and persevered in doing so frequently, because he was following the directions given by the medical gentleman, notwithstanding the smarting it occasioned. But, as might be expected, it did not restrain the bleeding, and at four o'clock, a. m. a messenger was sent to town. It was deeply affecting to observe the mischief that had been done by the injudicious practice adverted to. On clearing the mouth I found that the blood was issuing from the socket in the lower jaw, and it was arrested instantly by inserting small portions of lint tightly into the socket. The loss of blood, and the protracted excitement, had lowered the patient much; but the acid had occasioned a new and severe disease. The lips were swollen to three times their usual size, and deprived of the whole of the cuticular covering, whilst the tongue, and mouth, and fauces, were much swollen and completely skinned. The act of swallowing was rendered extremely painful and difficult at a moment when the condition of the patient demanded a frequent supply of nourishment. Upwards of a fortnight.

elapsed before the mouth became well. The lividness of the back had rather increased.

The sulphate of quinine was now combined with decoction and tincture of bark, and the diet was made as nutritive as possible. He took eggs in his tea and coffee, chicken and mutton were combined for soup, and wine was freely administered.

From this period he again rallied. He became cheerful; the frequency of the pulse diminished; a line of separation indicated that the progress of disease through three-fourths of the circumference had stopped, but it was extending upwards towards the right side of the neck, and in the interval between the two carbuncles.

On the 8th of August diarrhoea supervened, and notwithstanding the addition of tincture of opium to the bark, it ran on for some days, attended with tenesmus. A cretaeuous mixture was substituted for the bark. This relieved him, and the bark was renewed, conjoined with aromatic confection; and five grains of pilula saponis cum opio were taken every night. Granulations shot up, and the sloughs gradually separated, so that by the end of the month the chasm (which at this time two hands spread open would not cover) had partly filled up.

During the latter part of this month he had been greatly teased by a superficial ulcer on the sacrum from lying. It became irritable, and the patient having to get out of bed frequently, both poultice and plaster annoyed him, for at this period he was morbidly irritable. Some of the *soap cerate* combined with an equal portion of *adhesive plaster*, and spread on wash leather, remained in close apposition in all his movements, and answered extremely well. A circumstance occurred with respect to this wound which it is proper to mention. It had existed as a superficial sore for a fortnight or three weeks, and the attendants were cautioned neither to allow the discharge from the upper wound to trickle upon it, nor to apply to it the sponge with which the other wounds were cleansed. At length, however, some of the matter came in contact with it, and within

forty-eight hours the carbuncular action had been so completely excited that the ulcerated part had risen half an inch above the circumjacent parts in a tumour about three or four inches in circumference. It was divided freely, and the slough separated in a favorable manner.

In the progress of the disease, at different times, three or four spots, evidently of the carbuncular kind, formed on the back; but by complete division immediately on their discovery they were arrested.

Although the strength was rather improving, and the appetite good, his legs were very œdematos, and he slept but little.

Early in September the wound had healed so far that he was able to allow of his clothes being put on, and he rode out daily. His head was quite free from pain. In the preceding month it had been evident that the abdomen was too large, but his mind was so susceptible, and its being preserved tranquil was of so much importance, that I did not deem it expedient, at that time, to give marked attention to this circumstance, more especially as the large wound on his back was healing favorably under means which we could not alter with advantage. When he had a little farther recovered, towards the end of the month, the abdomen was carefully examined and the spleen was found of great size, extending below the umbilicus: and the liver, also, was much enlarged.

In the beginning of October, when the wound in the back had nearly healed, the patient began to retrograde. Though he took food plentifully, the strength failed; he became unable to leave his room, and occasional accessions of fever supervened: his memory, too, and other mental faculties became slightly impaired though he said that his head was free from pain, and he was increasingly irascible. The sulphate of quinine, combined with small doses of blue pill, was now given him, and the bowels were kept slightly open, securing one or two evacuations daily by an aloetic pill. The excretions from the bowels were free and of a brown colour. During the early part of this month his

appetite was craving, but afterwards it decreased. He became drowsy, but was unconscious of enjoying any refreshing sleep. His powers progressively sunk. During the week preceding his death, (which occurred on the 8th of November), bloody and purulent matter was discharged from the bowels very frequently. Two days before his decease the clouds, which had obscured his mind for many days, dispersed. Though when questioned on the subject he usually said he had no pain in the head, yet the attendants told me that he did appear to suffer occasional headache.

Assisted by my friend Mr. Callaway (who had once visited the patient with me at Camberwell) I examined the body on the 10th.—

As the body lay in the horizontal position, the resistance of the other viscera having ceased, the liver and spleen did not feel so tumid as they had done during life; still, it will appear in the sequel that they were much enlarged.

The eyes did not present an unnatural appearance except that perhaps there was a little more cloudiness in the pupils than usual. The scalp adhered to the cranium with unusual firmness, and so did the dura mater. There was very slight deposition of fluid between the membranes. The pia mater presented a highly vascular appearance. Before removing the brain from its situation we particularly examined the state of the optic nerves. In common with every other part there was an increase of vascularity about their point of union, but from this point anteriorly the nerves appeared of their full size, and were healthy in texture; but posteriorly, towards the thalami, they were excessively softened. If there were any difference in the degree of softness the right was rather the softer. We carefully removed the brain, and proceeded to a cautious dissection. The cerebral substance exhibited rather more numerous points of blood than we find in the healthy brain; but this was more particularly manifest over the optic thalami, and in a greater degree on the right side than on the left. On laying open the right ventricle we found the lining membrane crowded with vessels, and in many places it presented somewhat of a bloodshot appearance.

The thalamus was greatly softened in texture, and on its anterior surface the membrane appeared thickened and opaque as if from a deposition of lymph. There were corresponding morbid changes in the membrane of the left lateral ventricle, and in its thalamus, though not quite in an equal degree. We traced the nerves into the thalami and found that they continued soft till lost in the softened bodies from which they originate. The left corpus striatum appeared unusually prominent. The ventricles did not contain a larger quantity of serous fluid than is ordinarily found after death.

With the exception of heightened vascularity of the pia mater, and a slight patch of opacity in the tunica arachnoides, the cerebellum appeared healthy.

On opening the abdomen the spleen first presented itself to view. Its surface was uniform, though it contained a few small tubercles. It weighed four pounds and a half. The liver was about double its ordinary bulk, and rather indurated, but its structure had not apparently undergone alteration. The stomach was healthy and empty. The peritoneal coat of the intestines, and this membrane generally, retained its natural aspect; but we could perceive that the mucous coat was diseased in patches. We opened the cæcum and found the mucous coat much eroded, putting on a worm-eaten appearance; and where the ulcerative process had not gone on, the membrane was of a deep red colour.

The cavity of the abdomen contained about two pints of serous fluid.

Applying the history of the symptoms to the organic lesions, the view taken of the disease was corroborated. The early symptoms were viewed as in connexion with deranged hepatic function. It is true that the disease of the spleen was not suspected till it became apparent by its enlarged bulk, and though it is probable that the morbid action in it was consequent on that of the liver, yet no doubt it contributed in a measure to impair the general powers of the constitution.

From the succession of the symptoms we must infer that

the affection of the head was consequent on derangements originating in the digestive organs. First the *muscae*, connected with symptoms of cerebral plethora; and the *amaurosis* ensuing on disorganization, The indication of moderate bleeding, and of the counter-irritation, and the mercurial action were confirmed. It is true that the loss of the second eye occurred when the patient was under ptialism, nevertheless it was partly connected with mental perturbation. It was curious and interesting to observe, under such unfavorable circumstances, how perfectly cicatrization had taken place, for at the time of death the cicatrix from the carbuncle was not more than an inch in width and four in length.

The direct cause of softening of the brain has been a subject of controversy, though I believe the predominating opinion is that it arises from inflammation: it was very evident that chronic inflammatory action had been going on in the case under consideration, but connected with broken powers of constitution, and impaired forces of circulation. Here I would insert a memorandum regarding the hæmorrhage from the gums as occurring in an individual the subject of enlargement of the spleen. After having related some of the preceding circumstances to the Hunterian Society, a physician informed me that he attended a case of enlarged spleen in which a seton was inserted in the side. The hæmorrhage resulting was so profuse and continued that Mr. Wardrop deemed it necessary to tie several vessels. This brought to my recollection the case of a young lady, related at page 70, who had enlargement of the same viscus, connected with disordered action of the heart, in whom, also, profuse hæmorrhage resulted from the seton. Likewise of a gentleman who died recently, sixty-two years of age, the subject of violent cough, and of considerable derangement in the digestive organs. He had a tooth extracted about ten days or a fortnight before his death, and the hæmorrhage continued for thirty hours and reduced him greatly. On examination I found his spleen enlarged to about four times its usual bulk, and tuberculated.

These facts occur to me at this moment, and seem to indicate that splenic disease has some connexion with a state of the vascular system favorable to the inducing of passive haemorrhage.

Dr. Farre regarded the pains suffered by the patient whose case has been related asthenic, originating from constitutional causes. In the nature of the pain, and in the succession of the parts affected, there was, at least, analogy to rheumatism. Painful affections of this kind are not only frequent concomitants of disorder of the abdominal viscera, but, apparently, are often consequent on those disorders. Sometimes they appear decidedly rheumatic, at others they are neuralgic.

Effects of derangement of the digestive organs on the mind.

The influence which disorders of the digestive organs exert on the mind is familiarly known.—It may justly be asserted that there is no source of hypochondriasis, in its varied forms of perverted judgment, or of mental depression and fastidiousness so common. Though these effects insure for their unhappy victim comparatively little commiseration, they, perhaps, expose him to sensations as wretched as any of which mankind are susceptible. It is true these cases are sometimes adapted to excite ridicule. When we see a person, apparently in perfect health, personifying the inanimate objects around him, attaching the importance of truth to the wildest ideas of a disordered fancy, attributing to things with which all are familiar qualities directly opposite to those which they really possess, and imputing motives totally estranged from the intentions of their friends, it is difficult to repress laughter, or to withhold reproach. Scarcely is it possible to delineate the surprising fertility of a mind in this condition. The individual seems to have created for himself a new world, and to have peopled it with a race the most monstrous, he himself being an object of torture to all the new existences to which he has given birth. Who then will affirm that a hypochondriac, under these

circumstances, does not claim the utmost pity? In most of these cases there is evident derangement of the health—such derangement as admits of relief by medicine. It is really wonderful how speedily the mind is sometimes relieved from the most extraordinary illusions by slight attentions to the digestive organs. Not unfrequently, however, much difficulty attends the management of these cases, and considerable tact and discrimination are necessary. I shall not dwell upon the ludicrous and marvellous occurrences we occasionally encounter in this truly unhappy state, but shall proceed to detail cases of mental affection in various degrees which have resulted from the disorders in question.

CASE 1.

The Rev. ——, consulted me about June, 1823, having then been much indisposed for several months. He was of a rather plethoric habit, and when first attacked had been bled freely. The medical gentleman considered it a case of determination to the head. The patient also took the opinion of an eminent physician, who recommended purgatives and occasional leeching.

These measures had completely failed at the time I was consulted. He informed me that though corpulent he had never been robust, a circumstance that is very common; and those who infer that lusty persons must necessarily require depletion will often find themselves greatly deceived. He added, also, that he had always been somewhat disposed to melancholy. He was now, he said, unusually irascible, and existence was quite oppressive to him. He gave a most emphatic description of the state of his head, where he suffered a sensation of extreme tightness, of heaviness, and of irritation. Nevertheless, he was nearly free from giddiness, and though he had been advised to abstain from preaching, and to abstract himself from mental exercises, (to both of which he considered himself quite inadequate,) yet he experienced no confusion of mind, nor any loss of recollection. The tongue was greatly furred, the bowels were irregular,

and the excretions were unhealthy. The feces were generally of too dark a colour, but sometimes quite the reverse. For some weeks he had been living on an extremely abstemious plan. His description of every sensation was in the most exaggerated terms, but on careful investigation it appeared to me that the disorder of the head consisted of a spasmodic affection of the occipito-frontalis muscle, and at times the muscles of the face and of the extremities were thrown into the same irregular action. There was little or no tenderness about the epigastrum, so that the case appeared to be one of nervous irritation.

As there was some fulness of the abdomen he was directed to take a cathartic powder, consisting of calomel and of scammony each two grains, and of jalap six grains, every other night *ad vices quatuor*, and then to substitute five grains of the blue pill, taking the powder only once a week. With this he took some bitter infusion combined with a very gentle aperient. The head was shaved and the scalp rubbed with the ointment of tartarized antimony. He was advised also to improve his diet; to take meat once a day, and to drink a glass of wine after dinner.

Occasionally the affection of the head increased, and this always occasioned the utmost alarm under the idea that he should have a fit of apoplexy; but the increased disorder was chiefly dependant on mental perturbation, and always speedily declined on his taking a light cordial and being assured that there was no danger.

He gradually improved both in feelings and strength, and therefore was encouraged to recur gradually to his wonted duties, and to amuse himself a little in reading. By the expiration of a few weeks he had become considerably better, but the contractions of the occipito-frontalis, and the spasmodic actions of other muscles continued. He then took the carbonas ferri in the dose of ten grains twice a day, keeping the bowels gently open. Additionally improved by this medicine he went to a village near town with the intention of remaining a few weeks. After being there for a day or two he was seized, when walking up an ascent, with an

increase of cerebral affection, and became greatly alarmed. A medical gentleman was called in, and hearing the patient's vivid description of his sensations, perceiving that his pulse was accelerated, and seeing him rather lusty, he considered bleeding indispensably necessary ; and when he saw the patient hesitating, he imprudently told him that " the pupils of the eyes were dilated and he would not answer for his life for five minutes if he were not bled." He therefore reluctantly assented, and a large blister was applied between the shoulders. Though the sensation in the head was somewhat allayed by these means the strength was greatly reduced, and the mind depressed. He sent for me on the following day, when I advised his bowels being kept gently open and light tonics exhibited. He gradually improved, but at the end of a fortnight returned home worse than when he left.

Under the continued use of tonics he still improved, but complained of a new sensation in his head, namely, intolerable itching, which I found arose from a cutaneous eruption, not connected with the antimonial ointment for it had been discontinued for a long time.

The great imprudence of directing the mind of a morbidly susceptible man to a particular and very uncertain symptom as indicative of apoplexy, was often strikingly exemplified. He daily watched the pupils of his eyes, and soon he thought they appeared larger than usual. Though previously in a pretty comfortable state he became exceedingly alarmed, and the perturbation of mind reproduced throbbing of the head and a sense of confused intellect. I was sent for peremptorily, and preparation had been made in expectation that the lancet must be used, though he almost regarded it as signing his death warrant. He described the state of his head in the most pathetic terms—throbbing—giddy—confused—and almost every other formidable epithet was borrowed to define his sensations. His pulse, too, as might be expected, was rapid and strong. It was easy to perceive that his descriptions were exaggerated, and that the sensations he suffered were the result of

nervous excitement. He was assured that there was no danger, and after soothing his fears and giving him a glass of wine, he soon became tranquil, and the affection of the head subsided without resorting to means of an exhausting nature.

In the month of August this gentleman was thrown back by a moderate attack of bronchitis, for which there was occasion to bleed him, and digitalis and antimony were administered. His recovery was slow, and at times doubtful; and was greatly influenced by his ceaseless apprehensions of a fatal issue. By the end of the month, however, the effects of this attack had gone off, and he remained much in the same state as before its commencement. He was therefore sent to Brighton, and was directed to take five grains of the blue pill every other night, and occasionally some opening medicine, should the state of the bowels require it.

I heard nothing of my patient again till the 1st of October, when I was requested to visit him at home. He had returned from Brighton two days, and informed me that whilst there he was seized with a paroxysm similar to those already described, and under his perturbation a physician, rather celebrated for his knowledge of one form of cerebral disease, was sent for, and immediately ordered cupping. On its being stated that bleeding had been injurious before, and that his ordinary medical attendant considered the abstraction of blood improper except in cases of great emergency, he descended from his dignity, and applied to him epithets of vulgar abuse. Cupping, of course, was submitted to, and was repeated; and as the poor patient, whom an extraordinary fatality seemed to follow, found that instead of getting better he was rapidly sinking, he at length ordered a postchaise, and by easy stages arrived at home.

I found him worse than ever. He complained of a sense of great weight in the head; the pulse was 100, very small, and occasionally intermittent. The tongue was white and furred. There was extreme weakness, and dejection of mind bordering on despair. The history of his late attack,

the effects of the means employed, and his appearance on reaching home, clearly demonstrated that the whole series of his affections was connected with debility, and especially with an impaired state of the digestive and assimilating organs. A dram of tincture of bark in some bitter infusion was directed to be taken every six hours, and an occasional dose of Epsom salts, this being an aperient to which he had been accustomed. At the expiration of four days he was evidently better. The pulse was less frequent and less intermittent, yet he often perceived violent fluttering at the heart; and such was his susceptibility that the accidental fall of a vine-leaf against the window so agitated him as to produce a flow of tears. He described his life as being miserable to the utmost degree, and assured me that he should commit suicide were he not restrained by a consciousness of the guilt which attaches to such acts. Keeping the same principle in view, but with a slight variation in the form, he took a light tonic for three weeks. Calomel did not act so well with him as taking three grains of blue pill every night, or five grains every other night; but neither was continued for more than a week at a time. By the 20th of October he was able to walk out or ride daily. His appetite was good, his pulse generally regular and about 80, sometimes slightly irregular. By the 2nd of November he had little or no disease except occasional irregularity in the action of the heart, and he had partially resumed his ministerial duties. Soon after this time he went to reside in the country, and I did not see him for several months. He had become much thinner, but was comfortable in health, and more cheerful, though he had been greatly harassed by some domestic afflictions. His only medicine for a long time past had been an aloetic pill.

Neither corpulence nor throbbing of the head will, at all times, warrant depletion. Irritative action, and extravagant description, must always be taken into account when consulted by a person afflicted with hypochondriasis. It will not be doubted that the successive bleedings were essentially

injurious in the above instance, and contributed to induce a state of debility, from the effects of which it is doubtful whether the patient will entirely recover.

CASE 2.

In September, 1816, the Rev. John E—, of Scotland, having been unwell for several months, was advised to visit his friends in London, and on his arrival he placed himself under my care. The following is an abridged history of his disorder, as detailed at our early interviews. During the period alluded to he had been nearly incapacitated for study, and also for his professional labours, being unable to direct his mental faculties to any specific object. His mind too was greatly depressed. He suffered pain at the pit of the stomach, and his bowels were usually constipated. His urine was high coloured, and his respiration a little oppressed. In addition to these symptoms I observed that his countenance was sallow, his tongue was furred, his skin hot, and his pulse accelerated. His medical friends in Scotland had advised him to abstain from vegetable aliment, to drink wine freely, and to take stimulating medicines for the purpose of counteracting the dejection of mind to which too much importance seems to have been attached in the selection of remedies.

As there was febrile excitement, connected with the diminished powers of digestion, I advised him to live almost exclusively on vegetable and farinaceous articles, to abstain from wine and malt liquors, and to drink only small quantities of fluids with his meals. During the first fortnight he took five grains of the blue pill every night, and afterwards every other night; and twice a day he took an ounce and half of bitter infusion with a little magnesia and rhubarb. At the expiration of a month his health was greatly amended, and he was consequently directed to take the pill every third night. He soon afterwards returned to Scotland quite well.

It is well known that sedentary and studious habits exert

an injurious influence on the digestive functions, or, at least, the want of exercise is injurious; and persons whose habits are sedentary would do well to institute some method of ensuring regular bodily exercise. Walking and riding, though important exercises, do not require that general muscular effort which is necessary to counteract the bad effects of continued mental application. The active amusements of bowls and quoits, and the useful employments of digging and gardening, cutting and cleaving wood, turning a heavy windlass as in grinding malt, drawing weights over a pulley, and rowing, are exercises out of which studious men may make a selection according to their convenience. A modification of a gymnasium may be erected at trifling expense, and within a very small compass; and though in the excitable habits of children and youth, much caution is necessary lest by competitorship, or by coercion, the inordinate action of the heart should be prolonged by violent muscular efforts beyond what it can sustain, yet with care the various evolutions, and the feats of dexterity, may have a most salutary effect not only by developing the muscular energies, but by diffusing more generally the circulating fluids, and distributing the nervous principle. Men who set the highest value on their time will not find that what they may devote to bodily exertion is lost, for their capability of mental effort will be augmented by it.

There are dispersed over the country several establishments for the education of young men designed for the christian ministry—men who thirst after knowledge in the hope of its future application to extended usefulness, but who are excluded from university privileges by their adherence to the principles of protestant dissent. Some of these individuals have been early initiated into the habit of mental labour, but many of them emerge from the active employments of trade and agriculture, and it not unfrequently happens that from confinement and close application their bodily health materially suffers. The first effect of this change of occupation usually is inaction of the digestive organs—dyspepsia and constipation. The head generally

suffers next, from a state of plethora the result partly of the torpid bowels, but principally owing to the unaccustomed efforts of mind. The unequal distribution of blood, from the same causes, exposes other organs to congestion—hence there often is oppression of breathing and hæmoptysis, and great irregularity in the functions of the liver. We have repeatedly been much affected, at the lapse of a few months, by seeing the bloom of health supplanted by the pallid or sallow hue of disease, and cheerfulness succeeded by despondency.

In these institutions there is a feeling of delicacy as to some of the amusements pursued at juvenile establishments, and it is rather difficult to suggest such as are adequately laborious and manly, and which can be effected with sufficient exclusion. Cricket is undoubtedly a very manly game, and exceedingly well adapted to the student. Football may expose to broken shins, but it is a game which gives much better exercise than walking. Fives is an admirable game for prompt and lively exertion, and has the advantage of not requiring a very large space. Ringing is good exercise, but perhaps cannot be pursued without intermixing with low society, or annoying the neighbourhood, unless a set of dumb bells were erected for the mere purpose of exercise. It will not degrade them in the estimation of an enlightened mind if they borrow from their boyish days those amusements which then gave them strength and agility. It should be remembered that the health of these individuals is not only of importance to them but in some respects extends to the public, and it should form an indispensable object with the directors of these colleges to provide the means of bodily labour, combining exertion and relaxation; and it must be left to the prudence of these gentlemen when they shall be called to sustain the high and responsible offices to which they aspire to guard against an overfondness for amusement, and to avoid such as may offend the reasonably scrupulous. Literary men, or men who are greatly confined to the desk, should have one sufficiently high to allow of their standing, and in that position to carry on a consider-

able portion of their labours and studies. Constipation is one of the most common physical evils to which sedentary men are subject. The plan of exercise to which I have alluded, will have great power in counteracting it; and even the act of standing will have some influence. Where medicine is necessary I have of late found a combination of blue pill with a little of the watery extract of barbadoes aloes act very satisfactorily. But it is much better to obtain regular relief by exercise, if it can be accomplished.

In seminaries for youth it is of importance to ensure both amusement and exercise, and these should be adapted to the diversity of tastes. It will always be found that when a number of boys or girls are turned into a play ground, some will romp and skip and take delight in active sports, whilst others will sit down or saunter. There should not only be range of ground for active games, but also an outhouse or room so fitted up as to invite to exercise. Great improvements have now taken place in the plans for promoting health in schools, for which I believe the public are primarily indebted to the medical profession. In addition to dancing, skipping, battledore, and the dumb bells, ladies now have drilling and calisthenic exercises; whilst boys have additions from some of the least hazardous but athletic sports of the ancients. I was led to this digression by the consideration of preceding instances of the injurious tendency, both mental and corporal, of studious habits. In addition to the cases I have just related many others might be enumerated, but I shall limit myself to a very brief allusion to one, the subject of which was a valued and faithful friend.

CASE 3.

This gentleman had not only been occupied in the discharge of ministerial functions, but was called to sustain the important duty of superintending one of those establishments for the instruction of candidates for the sacred office

to which an allusion has been made, and he lectured in the theological department. The duties of his twofold office exposed him to excessive labour and anxiety. For some years he had been the subject of the milder symptoms of dyspepsia, and was often attacked with colic. The biliary secretion was unhealthy, and the intestinal excretions were very irregular. At length he became affected with fistula in ano, and after its being laid open the part was long in healing. Whilst in attendance upon him under these circumstances he informed me that he was quite astonished at the revolution that had taken place in his mind. "Only a few years ago," he said, "the fears of nervous people appeared to me nothing but affectation or chimera, but now I dare not pass a lonely place for fear of a robber, or enter a hackney coach lest it should break down; and the shaking of a leaf makes me tremble."

The office of president of the college exposed my friend to greater anxiety and application than he was able to sustain, and as the burden could not be lightened it was necessary to remove him from the situation. A considerable time elapsed before this could be effected, and the healing of the fistula was greatly retarded. However, by taking the blue pill, and some of the common excitants of the gastric energy, he had been kept from getting worse, but on being exonerated from oppressive duties he had very little need of medicine. The secretions became much more regular and healthy and his bodily and mental vigour were greatly improved. He continues to take an occasional dose of blue pill with great advantage.

CASE 4.

In October, 1824, a gentleman well known for his active beneficence, and most exemplary in all the obligations of life, called upon me in a state of deep dejection, verging to religious melancholy, averse to society, and totally disinclined to all kinds of exertion, even to those efforts in doing

good in which he usually felt deeply interested. He had returned from Worthing about a fortnight, and though comfortable whilst there, on his return his bowels became constipated and had remained so up to the time of his calling on me. He experienced fulness at the stomach after eating, though he ate very moderately, and a proneness to sleep in the daytime although his nights were watchful. The tongue was furred, but the pulse did not exceed 70.

The indication was clear as to the immediate relief of the bowels. As soon as this was effected he was conscious of slight relief. He then took some bitters in the day and the following pills every night.

R Pil. Hydrarg. gr. iv,
Pulv. Aloës gr. ij,
Succ. Hyosciami gr. iij, ft. pil. ij.

These pills did not keep the bowels sufficiently open, and therefore he occasionally took ten grains of the pilula aloës composita with his mixture. Though the general health improved and the mental cloud had in a measure dispersed, there was still some difficulty in regulating the alvine excretions. On the 5th of November the following mixture was prescribed for him.

* Infus. Gent. Comp. 3vij,
Tinct. Calombæ 3vj,
Soda Subcarb. 3iv,
Spir. Myristicæ 3ij.
Decoct. Aloës q. s. ut ft. mist. 3xij,
cujus sumat cochl. maj. iij bis die.

The diet all along had been plain and moderate but nutritious.

By the 14th his health was considerably amended. He slept soundly, had less inconvenience after eating, and the bowels were more regular. Still his mind was dejected, and at times was so oppressed that he felt as if the care of the world were upon him. There were some affairs connected

with his retirement from business which caused a little perplexity, and he was advised to take a journey. There appears to be a melancholy habit sometimes established which scarcely any thing will destroy but change of scene and new associations. The mind is beguiled from distressing topics, and the secretions of the viscera take place with greater regularity. The change was completely successful, and in a few weeks my friend returned well and happy.

Sometimes the source of mental dejection is involved in the deepest obscurity. In these cases, however, it is generally ascribable to physical causes, but we are not to suppose that the mind cannot suffer independently. Patients consult us some time after the distress has existed, and the bodily disease then present might have been occasioned, or, at least, aggravated, by the state of mind.

CASE 5.

Immediately after the subject of the preceding case had left my house, on the 30th of November, I was called upon by a gentleman little more than thirty years of age, to consult me on a trifling point regarding the conformation of his body. He fancied himself the subject of hernia or of some formidable disease. There was nothing, however, but the ordinary rotundity of the abdomen which was rather tense from flatus. His groundless anxieties on this point clearly elucidated his condition of mind, which he assured me was truly horrid. He had every thing around him calculated to excite the most pleasurable and grateful sentiments, and yet he was perpetually harassed by the apprehension of some great bodily evil, or haunted by the most unfounded idea of the turpitude of his moral conduct. He dreaded to meet any body even in the ordinary affairs of business. He informed me that the bowels were regular, but that the excretions were small in quantity, and of a brown colour.

It is impossible not to be deeply interested in a case where an intelligent and amiable man, sustaining the most

important domestic relationship, becomes the subject of such poignant feelings. His mind was in a measure soothed by the conversation resulting from his having unbosomed himself, and though there were no striking indications of physical derangement, there was enough to depress a mind predisposed to dejection. I prescribed for him five grains of the hydrargyrus cum creta every other night, and a mixture consisting of infusion of calombo, magnesia, and tincture of cardamums.

On the 25th he repeated his visit, and finding himself more comfortable requested another supply of the medicine. From this time he ceased to call.

CASE 6.

In the autumn of 1823 I was requested to visit a very intelligent and amiable woman about sixty years of age. She had before undergone attacks of mental depression, and she thought that when at Cheltenham, whence she had just returned, she had drunk too freely of the waters and thus impaired the digestive powers. She became dejected, and the dejection was increased exceedingly by hearing of the severe illness of a valued relative at a distance. She was averse to any medical treatment because she believed that her doom was fixed, and though an excellent and pious woman she felt a persuasion that nothing but death and eternal misery awaited her. The bowels were constipated, the tongue was furred, the taste was depraved, the appetite was impaired, the eructations were fetid, and the excretions from the bowels were very dark-coloured. Nothing could be more clearly characterized than the depressing and disqualifying effects of vitiated secretions.

The medical treatment consisted of an alterative course of blue pill and mild aperients combined with light tonics, and strict attention to diet was enjoined. For some time, however, the intensity of mental suffering increased, and she confined herself to bed expecting to die every night. The nights were watchful and not unfrequently the functions of the heart

were so depressed that both her friends and herself believed that the hour of dissolution approached. There was nothing in the state of bodily disease that led me to apprehend danger, but the consequences of her predictions of death, on a frame considerably exhausted, and at best very sensitive, were looked to with some anxiety. Her natural disposition was kindness itself, and she was alive to grateful acknowledgments for the attentions paid to her, yet it seemed utterly impossible, though placing the utmost confidence in her medical friend, to divert her from the most melancholy sentiments and the most painful forebodings. When he appointed a time to renew his visit she could scarcely think him sincere, (though unwilling to impute to him more than an error of judgment,) assuring herself that she must be dead long before his return. At times she complained greatly of her head, and was occasionally perplexed with phantoms and unpleasant dreams.

Leeches were applied to the temples, and a blister to the back of the neck, two grains of calomel with some scammony were given every other night, and a saline mixture three times a day. All along there had been considerable tenderness in the epigastric region, and over this part a blister was applied.

At the expiration of about a week it was observed that she was less confident respecting her approaching decease. Her tongue, too, looked better. Her rest was less interrupted, and she had an immunity from the paroxysms of diminished action of the heart. The excretions from the bowels were more natural, though of a reddish yellow colour. Many weeks, however, elapsed before she was well enough to engage in domestic duties, but by degrees she regained her wonted health and was able to relinquish the distressing apprehensions of which she had become the subject. For some time afterwards the bowels needed great attention, and the liver required gentle excitation.

It is probable that the liver was the primary seat of derangement, and the head secondarily affected, not only from sympathy, but also from mental perturbation. Owing,

however, to reaction, the disorder in the chylo-poietic viscera would have been much longer protracted if special attention had not also been directed to the relief of the encephalon, and to the comfort of the mind.

CASE 7.

In the summer of 1824 I was called upon by a maiden lady, about thirty-four years of age. She generally enjoyed good health, but was occasionally the subject of mental depression, although never before for so long a period. She informed me that for some months she had been in such a state of distress that life had been completely burdensome. She had neither inclination to food nor exertion. She slept but very little, and during the remainder of the night was excessively restless. Her tongue was furred. The pulse, as usual with her, was extremely languid and slow. The bowels were torpid, and the conjunctivæ rather yellow. After taking food she felt slight uneasiness at the stomach, but all these affairs she considered as totally unworthy of notice compared with her dejection of mind. This dejection I considered as dependant on physical causes, and she reminded me that two years before she had been benefited by some pills I had prescribed for her, which were the pilulae hydrargyri. This circumstance induced me to recommend the same medicine in the dose of five grains every other night, keeping the bowels open with mild aperients. She was to eat animal food once a day, to drink little fluid with her dinner besides one glass of wine, and she was advised to go into the country. She repaired with some friends to Brighton, pursuing for a month the plan laid down, and enjoying all the auxiliary aid which bathing and society could render. During this time, however, she grew worse, and returned home with all the distressing feelings mentioned above in an aggravated degree; and the evidence of the severity of her inward suffering was strongly depicted on her countenance. Her head was painful and confused, and though she took a little food from a consciousness of

its being necessary, she had no appetite. There was considerable torpor of bowels, and therefore I prescribed for her as follows.

R Hydr. Submur. gr. ij,
 Pulv. Scammon. gr. iij,
 — Jalapii gr. v. M. ft. pulv. primo
 mane sumendus.

R Decoct. Aloës Comp. 3x,
 Tinct. Calomb. 3j. M. ft. haustus; bis
 die sumendus.

Three days afterwards she informed me that she continued much the same, but the expression of countenance was not so melancholy. The powder had acted powerfully, and the draught, which she liked much, had kept the bowels open at other times. She was directed to repeat the powder and to continue the mixture.

At the expiration of a week she was much better, indeed, to quote her own words, she felt "quite a different creature." The bowels continued somewhat relaxed, and therefore she was advised to take the mixture only once daily.

About ten days afterwards, on paying a friendly visit, I had the satisfaction to learn that my patient was quite well.

Not only do affections of the mind which appear very similar require a diversity of treatment in different persons, but in the same individual they will not always be removable by the same measures. There are no diseases which require greater resources of mind, or greater freedom from prejudice in favor of a limited system of practice, than those which relate to the rational and sentient faculties. We must keep in view some general principles, but there are peculiarities in almost every case, and not unfrequently they perplex the most inventive powers.

Aphelria.

In most of the former cases there was heightened sensibility to surrounding objects, but sometimes the mind sinks into an opposite state. The feelings are preternaturally obtuse, and there is an indifference or carelessness about personal conveniences and relative obligations. Sometimes there is little more than listlessness or morbid abstraction—an appearance of musing, that would be regarded by others as a mere indication of increasing thoughtfulness, and yet, perhaps, when seemingly occupied in meditation and studious thought, there never was a moment of greater vacuity or aberration of mind. Slight as the evil may appear, it is a state that ought not to be neglected, for occasionally it proves the precursor of an intellectual wreck.

CASE 8.

A gentleman, of extensive scientific attainments, especially in chemistry, consulted me several years ago on account of fever which had somewhat of an intermittent type. He took bark freely, and his fever was removed. I observed on his recovery that he was very hypochondriacal, with a proneness to fall into a state of listless abstraction. One morning when I entered his chamber and addressed him, he burst almost into an expression of rapture, and said that I had roused him from the most distressing reverie. As he lay, pondering on his situation, he believed that his body had evaporated, and how the particles of steam were so to coalesce that he might regain his identity was the subject of intense solicitude. For some years I have had no communication with this gentleman, but I am informed that he has continued dyspeptic—that his head is sometimes sympathetically affected—that he has grown increasingly fastidious—and is now so apprehensive of mischief from his neighbours that he has been reconnoitering their premises to ascertain the points at which he is

most assailable from them, although these neighbours are persons of respectability who never harboured a feeling inimical to him. Within the interval of my attendance on this gentleman, and the reports to which I have alluded, he has made some valuable contributions to science, but it is evident that his mind is endangered though by a slow progression. Diversion of mind, and a cessation from study, should be enjoined under such circumstances.

One case more, exemplifying similar effects, but exercised with greater constancy, shall suffice.

CASE 9.

Early in the month of October, 1823, I was consulted by a very intelligent gentleman, about thirty years of age, who informed me that he had fallen into a state of mind quite incomprehensible to him, especially as he was unconscious of labouring under any definable disease. The circumstance to which he particularly adverted was a sensation of universal torpor, accompanied with extreme mental apathy, amounting to an indifference to the common incidents of life—totally disregarding the result of every thing he undertook. He elucidated this by referring to an incident which had recently occurred. When riding in a chaise with a friend the horse fell, the shafts of the vehicle broke, and by the plunging of the animal he was exposed to the most imminent peril, yet he felt so unconcerned as scarcely to attempt to move from his perilous situation till severely expostulated with by his friend.

As he was a young man accustomed to business, and had a cultivated understanding, he clearly discerned the evil of remaining in this state, and therefore earnestly solicited relief if it could be afforded him. He experienced no pain in the head, or in either hypochondrium, and the bowels were moderately open. The eyes exhibited a yellowish tinge, but it did not appear deeper seated than the conjunctivæ. His appetite was impaired, and he was much

annoyed from flatulence. There was connected with this young man's case a painful reference to some indiscretion of early life, but it was easy to perceive, on this subject, that it was the compunction of a tender conscience greatly perverted by the scandalous publications of mercenary and ignorant empirics, and by demoniacal temptation.

It was evident that he needed the kindest management, and though something could be effected by medical treatment, it was rather by counsel, and an appeal to his reason and his religious principles, that his distress was to be overcome. Happily he had a sufficient sense of moral obligation to protect him from self-destruction, or his indifference to life would have left him undefended. After due attention to the mind, he was recommended to take six grains of hydrargyrus cum creta every other night, and five grains of carbonate of ammonia in some infusion of calomba three times a day.

He had been accustomed to take both wine and porter with his dinner, but he was directed to omit the latter and not to exceed two glasses of the former.

At the expiration of a week he represented himself as being much better. His mind was so far improved that he began to feel somewhat of the value of life, and to take an interest in business. His appetite was improving, he experienced less flatulence, and the yellowness of the conjunctivæ was decreasing. He continued the same plan, and three days afterwards reported himself well.

At the end of another week he perceived some indications of a recurrence of the affection, and solicited a renewal of the medicine, which speedily averted the symptoms.

As this amiable young man had been the subject of frequent attacks of mental distress under some peculiarity of modification, and as his circumstances fully warranted the connexion, I urged upon him the importance of marriage. At first he thought himself quite unworthy of so honorable a relation; but, under amended health, and a less beclouded state of mind, his views altered, and he soon associated himself with an interesting woman every way adapted to make

him happy. He was greatly cheered by the society of his wife, but, at times, under slight dyspepsia, his dejection returned, and needed both mental discipline and medical treatment.

I have known persons impute to *mastupratio* extreme degrees and most humiliating forms of mental distress. Though we should be most cautious not to palliate this vicious and odious practice, which in some schools is carried to a most lamentable and pernicious extent, yet, when the mind becomes deeply affected by a retrospective view of the turpitude of former years, it usually arises either from physical derangement, or from a heightened tone of moral sensibility. Sometimes the nervous system is so affected that there is not only an indifference to the ordinary avocations of life, but a total insusceptibility to conjugal excitement, and the idea of permanent incapacity has added to the intensity of distress. These cases, however, generally do well by judicious and persevering treatment.

It would be incompatible with the nature and design of this publication to amplify on the subject of mental diseases, except so far as they are connected with the digestive organs, nevertheless, I cannot pass onwards without a few remarks on subjects of which the preceding cases remind us.

The proteiform effects of derangements of the digestive organs are strikingly exemplified, even if we exclusively consider them in relation to the mind. The memory and other mental faculties I have shown may be impaired, especially from suspended hepatic function, when that of itself may appear slight and unimportant. I have known persons lament that their memory was not so retentive as formerly—that they had impaired power of application—that in reading or in listening to a speaker they had less command over their attention, and were not so ready in comprehension as formerly; but did not suffer headach, nor consider themselves unwell, though on inquiry it was evident that the abdominal viscera were not in healthy operation. These persons experienced an essential improvement in the mental powers on the functions of these viscera being restored.

But the evil is not limited to the powers of the mind, for the same cause sours the temper; and though the man may perceive and lament his irascibility, he still finds himself irritated by circumstances which formerly would have produced no such effects. Envy, too, and suspiciousness, become developed. He imputes motives the most unwarrantable to persons about him, and fancies that almost every man is more prosperous than himself. He feels a secret pleasure in the misfortunes of others, and suspects even his friends of an intention to do him injury, or to show him disrespect. Though ashamed to violate social relationship, he is a stranger to those honorable feelings which an intelligent and social being should cultivate, and which, perhaps, had usually actuated himself. These affections, like diseases of the body, claim early attention, as they are usually much more easily removed in their incipiency than when inveterate. The disease on which they depend in its advanced stage is not so easy of remedy, and when a habit of incorrect thinking is formed the individual has not only to overcome the habit in relation to himself, but it is more than probable that he has difficulties to encounter in relation to others. A man who has long entertained erroneous opinions, has not unfrequently involved himself with others, either in the sentiments he has expressed, or the actions to which his opinions have prompted him.

In all cases of protracted dyspepsia we should ascertain, if possible, whether the derangement be kept up by any cause of mental solicitude. Our patients, and particularly our young friends, are not always candid enough in their confessions; and from their own disingenuousness they subject themselves to severe and unpleasant discipline, expose their friends to needless expense and anxiety, and occasion the practitioner great vexation and disappointment. Where there is reason to suspect dissimulation, no feeling of interest will ever allow an honorable man to connive at it. I am persuaded, however, that reprehensible as many of the individuals are who practise deceptions of this kind, in many

instances of simulated disease our compassion should be awakened. Under a variety of causes we have seen how slight a physical derangement may produce mental incongruity. In cases of severe disappointment arising out of a thwarted attachment, and where an attempt has been made to gain the object by a succession of feigned diseases, of which I could enumerate some striking examples, there is, perhaps, not always so much guilt in the artifice as we may at first imagine. The mind has been powerfully affected. The secretions and the excretions have become irregular, and the disordered functions have reacted on the mind. Dejection and partial alienation have resulted. I have been consulted in cases where the concealment and disguise were practised by individuals so truly exemplary on all other points that I was led to regard it as a species of monomania. The perversion might originate in a deranged state of the digestive organs, independently of the powerful cause to which I have alluded, and has been found the precursor of obscure but fatal disease. I have seen cases in which the cause was extraneous, depending upon ill-directed education—the inaccessibility, or the arbitrary or tyrannical disposition of a parent or guardian; but in other cases it would appear that no apology whatever, nor even extenuation, can be offered, except what is found in the common frailty of human life. Let us, however, be on our guard, and not indiscriminately associate cases in the origin of which there is great contrariety.

Whenever it is discovered that the functions of the digestive organs, or of any other organs, suffer from mental causes, or where mental suffering is induced or aggravated by physical derangements, there is not only the most legitimate occasion for medical treatment, but it is equally incumbent on the practitioner to direct his attention to the mind. He must discriminate its diversified exigencies, afford such counsel, and adopt such discipline, as the peculiarity of the circumstances may demand. Some of these patients merit firm and decisive reproof or exhortation, and towards some others the expression of sympathy will not be expedient:

but many are most justly entitled to the deepest commiseration, and the exercise of kindness and compassion will not be misplaced. No feelings of humanity can justify the undiscriminating and unmitigated severity in which some practitioners have indulged. It is unmanly to take advantage of a disabled mind, and uncourteous to violate the civilities of life, when an equivalent is given for the counsel solicited. Such conduct is disreputable to the individuals themselves, and is disgraceful to a profession whose object is to sooth and heal, not to insult and irritate—nor to terrify and worry, and repel the afflicted. We know some of these men are susceptible of the kindest and most benevolent feelings, and this makes it the more lamentable that either from habits formed in early life, or from an impatient or intractable temper, they should do despite to the suggestions of a humane and generous disposition.

Medical men are not unfrequently consulted respecting individuals labouring under what has been denominated *religious melancholy*. On subjects so momentous as those involved in their future and eternal interests, we cannot wonder that persons sometimes feel both solicitously and acutely. It is true the doctrines of christianity, when rightly considered, are not adapted to excite despondency—they should rather cheer and animate the mind, and sustain the hope, and temper the passions, amidst the perpetually recurring difficulties and excitements of life. Nevertheless, a susceptible mind, duly impressed with their holy and elevating tendency, and conscious of its inability to attain the standard of divine revelation, must often feel dejection when the provision made for the penitent, in the obedience and sacrifice of the divine Redeemer, is not sufficiently considered.

Whenever these cases are uncombined with corporeal derangement, of course they do not fall under the province of the medical practitioner; but I apprehend that where the feeling is very intense it rarely happens that there is not some bodily affection to which attention may be usefully directed. Most frequently these cases occur in persons having a predisposition to dejection of mind, a proneness to

deduce unfavorable inferences, with respect to themselves, on all subjects.. It will signify comparatively little, so far as their feeling is concerned, what may be the religious sentiments they adopt, provided they are sentiments which invest religion with its preeminent importance. *Couper* appears to have afforded an example of this kind. The seeds of melancholy were early sown in his mind, and its exquisite susceptibility was favorable to their development. Nothing could be more unjust than to impute to his tenets that which was identified with his temperament and constitution. Where no apparent derangement of health preceded, it frequently happens that in consequence of the mind's dwelling almost perpetually on one topic both the health and the reason suffer, and the tendency to this is frequently increased by an encroachment on the needed hours of repose. Whether, therefore, disorder of the health be a precursory or consequent occurrence, the case becomes deeply interesting ; and a judicious combination of medico-moral treatment may be most satisfactorily employed.

The diversity of circumstances under which these cases occur renders it impossible to institute any other than general principles of management. Not unfrequently an attempt is made to divert the attention wholly from religious subjects, and to effect this a routine of amusements, and an endless change of society, have been recommended and pursued ; but no plans are so irksome to the patient, or so inefficient as to the result. We have known instances in which the most injurious consequences, both to the mind and health of the individual, have resulted. If there exist a sincere conviction of the importance of religion, no efforts directed to extinguish that feeling will avail. Instances without number might be adduced to prove that it has withstood the most assiduous efforts that severity could dictate, or mistaken kindness employ. All attempts to destroy religious sentiments and feelings by ridicule and reproach, or to control them by coercive means, will only augment the mental perturbation. But, though they cannot be extinguished, the most salutary guidance may be afforded under

kind and prudent management. The associates of an individual under these circumstances may exercise very powerful influence. If with sound judgment and conquered feelings there be somewhat of congeniality of sentiment, intercourse with them will tend to allay the mental anguish by softening the sensibility and by correcting and guiding the opinions.

Similar observations will apply to reading. For though it will be necessary to make a prudent selection to occupy leisure moments and to assist reflection, yet to prohibit writings somewhat adapted to the individual's inclination would generally be found injudicious if not seriously hurtful.

It will be indispensably necessary to prohibit any encroachment on the necessary hours of rest, as well as the practice of being recluse during the day; and the occasional indulgence in such recreations as inflict no violence on conscience may be exceedingly beneficial.

Many cases of deep distress of mind from religious impressions, connected more or less with bodily disorder, have fallen under my observation, and have been benefitted by plans of management formed on the principles I have stated, conjoined, when needful, with medical treatment. I have ventured to offer these suggestions because some practitioners have great repugnance to interfere in such instances, and if they do interfere are disposed to sanction the imputation of fanaticism. Indeed, we have occasionally known them countenance plans of management more befitting the persecuting reign of Mary than congenial with the present age of enlightened and liberal policy. We believe, however, that such an accusation is not extensively applicable.

Among religious opinions the doctrine of predestination is, perhaps, that which is the most impugned, as it relates to the mental powers; but I may safely challenge the opponents of this doctrine to substantiate their charges by the preponderance of their facts. The persons who have made these assertions have, perhaps, taken little trouble to ascertain the import of the word as used in scripture, and as adopted by

a numerous class of episcopalians, and amongst some of the most numerous sects of protestant dissenters. These objectors usually couple with it the horrid doctrine of reprobation, or combine with it the idea of a man's esteeming himself released from accountability—of his being impelled to an inevitable and unalterable destiny. It involves in it, however, no such consequences; and having had a pretty wide opportunity of observing its moral, and mental, and physical effects; I venture to affirm that it does not sanction or even tolerate licentiousness of conduct, or necessarily induce melancholy feelings, or promote aberration of mind. But that persons who hold this sentiment are liable to all modifications of mental and physical maladies, in common with others, will not be denied.

Though it is true that under perverted views, in peculiar constitutions, religion has been the cause of great dejection, yet, it may safely be asserted that the cultivation of religious and pious habits has a most benignant influence in producing peace, and evenness, and power, of mind. Many individuals, men of acute discernment, and whose testimony did not arise from prepossession, have often expressed their astonishment at the patient endurance of suffering, and the tranquil contemplation of death, manifested under these circumstances. This observation does not apply to those cases in which attention to its momentous concerns was deferred till the season of apprehended peril; for then, although the sufferer may be deluded into false security, and the tortures of an accusing conscience may be somewhat allayed, the mind is generally in a state of too much distraction to receive its highly consoling influences. Repose amidst the painful and mysterious events of providence can be reasonably expected only when religion is the result of deliberate conviction, when it has maintained its just ascendancy over the passions, when it has been exemplified by integrity of conduct, in faithful reliance on the unerring wisdom of the Deity, and in the enjoyment of a hope of immortality through faith in the Redeemer.

Influence of the digestive organs on the muscular system.

The influence of the digestive organs on muscular action is very remarkable. It has hardly escaped the observation of any individual, how greatly his feeling of strength, and his agility of locomotion, are dependant on the condition of the digestive organs acting through the medium of the nervous system. Weakness, aching limbs, paralysis, and involuntary contractions, are so often occasioned by derangement of the organs in question, that it is scarcely necessary to advert to the subject. Owing to worms, and other causes of irritation, in the alimentary canal, how often do our infantile and juvenile offspring become the subjects of convulsions, chorea, or other spasmodic affections!

In these states of deranged digestion it is very curious to observe how a single muscle, and an insignificant one as to size, shall become the seat of these irregular actions, and perhaps be the only disorder of which the patient might be conscious!

Cases of spasm.

A few years ago I was consulted by the mistress of a family respecting a maid servant who had been rendered extremely uncomfortable for some days, in consequence of a perpetual convulsive action in one of the zygomatic muscles. This action gave the face rather a ludicrous expression. The young woman enjoyed good health, and represented herself as being well at the time. On inquiry, however, I found that the bowels had long been constipated. Some purgative medicine was administered to her, and in a few days the muscular affection wholly ceased.

I was recently consulted by a strong man, a sugar refiner, who informed me that he was dreadfully affected with cramp, with which he was repeatedly attacked every night, and owing to the agony was compelled to rise from bed. There appeared to be a morbid state of hepatic secretion, and

no medicine was prescribed except a grain of the hydrargyri submuriæ every other night. After taking even the first dose he experienced no further annoyance from the attacks till some weeks after he had ceased taking the pills. On the recurrence of the affection he solicited the same remedy which proved equally efficacious.

A little boy, five years old, who a fortnight or three weeks before had undergone scarlatina, was seized at the beginning of November, 1822, with severe pain between the shoulders, attacking him in paroxysms of about an hour's duration. During the continuance of the paroxysm the arms were stiffened, and the muscles of the upper part of the back were contracted. I visited him on the 5th, and found him under one of the tetanic attacks. He had slight fever, a furred tongue, and unsettled bowels. I directed the back to be rubbed with soap liniment, and the following powders to be taken.

R Pulv. Ipecac. C. gr. iij,
 Hydr. Submuri. gr. ss,
 Pulv. Antim. gr. j, M. et ft. pulvis ;
 sexta quaque hora sumendus.

These powders were continued till the 12th, with the occasional omission of the calomel, but up to that period no amendment had been experienced. The attacks recurred three or four times daily, and were extremely painful; but in the intervals he was comfortable.

As there was gastric acidity an alkaline mixture was prescribed for him as well as an active dose of calomel and scammony every other night. From the 14th the attacks began to diminish both in frequency and violence, and by the 25th they had wholly ceased.

In the year 1821, the mother of this boy underwent a most severe spasmodic attack, apparently connected with deranged bowels; it occurred soon after parturition, and affected first the upper limbs and then the diaphragm and heart.*

*This case is given at length in my edition of Morgagni, vol. 1, p. 129.

In other cases somewhat resembling that of the youth above described, I have found purgatives and carbonate of iron successful ; but as these attacks, as well as those of chorea and similar affections, originate under widely different circumstances, the treatment also must be varied.

The first of the two following cases, affords evidence of sympathetic affection in the leg, in which the muscles were concerned ; and the latter is a striking and lamentable instance of adynamia, connected with a greatly impaired state of the mental faculties.

Affection of the leg from chronic hepatitis.

On the 1st of April 1818, I was requested to visit Mr. G. a traveller in the wine trade, about thirty years of age. He informed me that he had just returned from a long journey, during which he had suffered greatly in consequence of a disordered stomach. He had consulted Dr. Carr of Northampton, Dr. Digby of Norwich, and other physicians in his route. The acute symptoms had been mitigated, but he found them returning. He complained of pain in the scrofulus cordis, and in the right hypochondrium, extending round the back and beneath the right scapula. The abdomen was tender, especially at the edge of the ribs on the right side. He had become greatly reduced in flesh, and was much annoyed by flatulence. One of the most prominent points of complaint, however, was violent and deep-seated pain in the leg, with extreme soreness and inability to bear it on the ground ; but the limb was not swollen. It had commenced after the abdominal affection, and, from the history he gave me, I was led to believe that the disease was seated in the muscular tissue and not in the cellular. His pulse was 90.

Ten ounces of blood were withdrawn from the side by cupping. Five grains of the blue pill were directed to be taken every night, and ten grains of sodæ subcarbonas in a diluted dose of infusum calombæ three times a day. On the fourth he reported that during the preceding night he had experienced violent pain in the stomach, apparently from

flatulence. He still had pain beneath the edge of the ribs, and on examination I could distinctly perceive the liver projecting into the abdomen, but its surface felt even.

There was a slight tinge of yellowness round the patient's mouth, and in the paler parts of his face. His tongue was but little furred, and the urine not high coloured. The pulse was 85, and the temperature of the skin comfortable; but towards morning he uniformly had profuse perspiration. There was so much tenderness in the right hypochondrium as not to allow of his lying on it, and on attempting to recline on the left side, he was immediately seized with a sense of dragging in the opposite side, so that decumbence in the supine position, with the body bent, was the most comfortable posture. It was evident that he had subacute hepatitis. He invariably found the leg most painful when the digestive organs were the most disturbed. He passed the night of the 6th restless, and was low and languid the following morning. The soreness about the hypochondrium and the abdomen had decreased; the state of the leg was nearly stationary, though still varying according to the condition of the abdominal organs.

Two days afterwards, under continued improvement of the hepatic affection, and under the nightly use of the blue pill, the leg had become much better. Twice or three times he took a grain of opium at bedtime with the blue pill, but it was necessary to discontinue it, for though tending to promote sleep, it checked hepatic secretion; the tongue became more furred, there was an increase of flatulence, and the uneasiness of the leg increased: eight grains of the succus hyosciami were substituted for the former pills, and every other night two grains of the hydrargyri submuriæ were combined with the extract.

By the 23rd of this month he had lost nearly all the more acute symptoms of disease in the abdomen, and therefore an ounce and half of decoction of bark, with a moderate dose of tartras potassæ was taken twice a day. The leg, however, was still extremely weak, and at times very painful; the muscles were peculiarly flabby, and the limb was evidently

wasting. Various local applications had been tried, but he had not derived much advantage from any, except an anodyne embrocation.

On the 24th he informed me that during the preceding night he had suffered violent pain in the leg, although his general health had improved. He experienced no pain in either hypochondrium, but felt low and languid. Whilst directed to continue the tonic mixture, he was also recommended three grains of the pilula hydrargyri with an equal quantity of the extractum conii three times a day.

He reported on the 26th that the leg generally was very painful. It continued wasting, and the power of motion in the toes was very imperfect, nor could he bear any weight upon the limb. His tongue was furred, but his appetite was now moderately good, and his bowels were regular.

The dose of the extract of hemlock was increased to four grains, which he took three times a day, with the same quantity of the blue pill as before. The decoction of sarsaparilla was substituted for the bark.

By the 29th he had so much improved as to suffer little pain in the leg, which he was able to move freely.

Early in the morning of the 7th of May I was sent for in haste, in consequence of his having vomited blood in rather a considerable quantity. He complained of severe pain and soreness across the epigastrium, and his bowels were rather confined. Some purgative medicine was prescribed for him which acted freely. The first dejection was very bloody, but not the succeeding ones, and by the following morning the soreness had decreased. As he was still extremely weak a small dose of the pilula ferri cum myrrha was taken with the cicuta, and the mercurial pill every other night. On the 12th he had rather an increase of abdominal soreness, and occasionally he had pain. His tongue was a little furred. The leg gave him very little pain, and his appetite was good.

From this period he took small doses of neutral salts, and occasionally some mineral acid in bitter infusion. He

steadily improved, and by the end of the month could walk about and appeared nearly well. A jaunt into the country was recommended to him, and he returned about the beginning of August quite well. Even then, however, the leg which had been diseased remained the smaller of the two. A continuance of good health was enjoyed, and in progress of time the limb regained its proper bulk.

Though this gentleman had been more circumspect than many who travel in the same line, and who fancy that an order from the publican can be most readily obtained over the bowl, or the bottle, yet he had somewhat injured himself by drinking to excess. The liver, from this cause, was predisposed to congestion and inflammation, and this had been increased by the exposures of a journey. The conjoint effects of these causes placed the patient in great hazard of organic disease, and he prudently resolved to discontinue habits which had exposed him, in the prime of life, to considerable suffering and peril. The haemorrhage, it is probable, took place from the vessels of the stomach, without abrasion. The pain in the leg I regarded as neuralgic. The diminution of bulk, and the occasional existence of inflammatory action, were not opposed to this opinion. Wasting frequently happens from paralysis, and the transition from irritation to inflammation is not uncommon.

On many occasions I have seen inflammation and ulceration of the legs arise from hepatic lesion. On two occasions ulceration in the legs was kept up by periosteal exostosis, which appeared to have arisen from a morbid diathesis, the result of organic disease in the liver. One of these patients had been accustomed to excessive drinking, and after death the whole liver was found scirrhou. Both legs had been in the state I have described, and in consequence of the continued and unallayable pain and irritation attendant on one of them, the patient's desire to have the leg amputated was complied with about two years before his decease. I never saw an affection of the leg exactly like that described above.

Adynamia and impaired intellect from derangement in the digestive organs. Human rumination, &c.

Before proceeding to detail the following complicated case, I must bespeak the reader's candour. The sufferer was reduced to so miserable a condition, and the circumstances altogether were so deeply interesting to me, that, perhaps, I might be betrayed into prolixity of narration. The efforts of the medical practitioner are not limited to medical and dietetic prescription:—it is equally his duty to discipline the mind; and the combined attention to these objects contributed to raise the subject of the following particulars from a most abject condition of bodily and mental imbecility, connected with extreme perverseness.

CASE.

On the 23rd of August, 1817, a gentleman residing near town requested me to visit a relative of his who had been conveyed from a more remote part of the country, and who, he said, was either deranged, or so unaccountably perverse that it was kindness to impute his conduct to insanity. The leading object the gentleman had in view was to obtain a certificate of lunacy to place the patient in an asylum. He informed me that the patient was sixteen years of age, that he lost his father when very young, that he had been much indulged by his mother, and that his temper, as early developed, was not good. At eleven years of age, he said, he went to boarding school, and evinced considerable facility of acquiring the elements of knowledge, so that he proceeded satisfactorily with his studies; indeed, was extremely fond of reading, and his application was sometimes intense. At length he became ill, and was sent home to be under maternal care.

He was not able to give any precise intelligence respecting the nature of this attack, but was informed that it had some

connexion with a disordered state of the bowels. The more active symptoms quickly subsided, but the youth was left with slight indisposition, chiefly indicated by his capriciousness of disposition, his deceitfulness, and his frequent refusals of food.

He experienced the utmost attention that kindness could suggest, till his mother's health and comfort were so essentially injured that her friends persuaded her to subject him to coercive treatment. Firm and severe measures were tried very perseveringly, for the purpose of removing what was now ascribed to an unsubdued and evil temper. Under this management the mental powers became increasingly enervated, and his body wasted rapidly; so that he was again committed to the care of his mother. While with her he gained flesh, but his mental faculties remained equally weak and perverted.

During the whole of this period the bowels were constipated; and a variety of purgatives and other medicines were prescribed by the family practitioner. The patient had often taken calomel, but uniformly to his disadvantage.

By the confinement he demanded of his mother, by the solicitude excited, and by the constant and thankless services she rendered, her health again suffered. He at this time had sunk so deeply into a state of childish imbecility that he could not be tranquillized at night without sleeping with his mother, and often he required her to rise for the purpose of changing his position. Again forbearance had done its utmost, and it was resolved once more to withdraw him from an overindulgent nurse, partly with a view to her own restoration, but principally from an idea that her kindness and pliability fostered the son's waywardness. So convinced, indeed, were the friends that mental alienation existed, that he was sent to a private asylum, and was placed with a raving maniac. After remaining here for a week he was seen by the physician, who did not regard him as a proper object for the institution. The situation had produced great dismay, and the youth presented the most earnest entreaties for removal, promising his utmost endeavours to

avoid every thing which was unpleasant to his friends; but it was soon discovered that thankful as he was for deliverance from his horrible confinement it had no influence on his future habits.

Sometimes he was attacked with convulsive affections resembling chorea. Occasionally he voided, with the alvine excretions, flakes of substance nearly as large as a finger nail, which, from the description, consisted of concreted mucus. Sometimes he had difficulty in swallowing, and the stomach frequently ejected its contents. One of the most eminent physicians in London, who saw him, supposed that he had worms, but none were ever discovered. He was also visited by another physician of extensive experience, but no very efficient measures were adopted.

When I was requested to see him four years had elapsed from the commencement of this train of circumstances. For three years he had been confined to the house, except when forcibly conveyed away in a carriage; and for two years he had not supported himself on his feet. During the whole of this time the utmost indocility of mind, and progressing feebleness of body, had been manifested. He never sought improvement from books, however entertaining, and was so irritable that conversation in his presence excited termagancy. He was now regarded nearly in the hopeless condition of idiocy, and under this idea he had been forcibly brought from his mother's residence into the neighbourhood of town, under the hope that a testimonial would consign him to a place of safety, and exonerate his friends from a heavy weight of anxiety, and from perpetual vexation.

The history is thus brought down to the day on which I was required to see the patient, and the relative who requested my attendance said that he must be present at the interview, or, perhaps the youth would not give any account of himself: but his presence was declined, as well as that of any third person.

When I entered the room he had just been lifted out of bed, and his appearance was truly deplorable, and well adapted to excite commiseration. He sat in a chair, wrapped

in a blanket, leaning his head on a pillow. His face was pale and distressed, his lips were dry, and nearly all his teeth had rotted away. The pupils of the eyes were dilated, and the conjunctivæ inflamed. After speaking to him kindly and expressing sympathy and interest in his condition a measure of confidence seemed to be excited, and he gave a tolerably minute and unreserved description of his sufferings. From that account and from inquiry the following particulars were gathered. He had been ill four years. He was seized in the commencement with pain in the head and stomach, and though he thought these parts were affected simultaneously yet he had not a distinct recollection on this point. He experienced occasional pain in the region of the umbilicus and stomach. The abdomen was soft, but felt sore on pressure. This was more especially the case in the right hypochondrium, and I could trace the liver descending below the ribs towards the umbilicus. A deep inspiration did not occasion any inconvenience till the thorax was nearly expanded, when he felt pain and soreness across the epigastric region. The abdominal pain was increased after taking food, and thin and simple diet he found most suitable to him. Some kinds of food occasioned sickness, but he did not recollect what they were. Whenever he partook of food that was rich or fat the eructations were exceedingly nauseous, yet he ate animal food, and sometimes in great quantity. He usually perceived either an acid or bitter flavor, and broths uniformly turned sour. He was greatly annoyed by flatulence. The dejections were very dark, and seldom obtained without medicine. The urine was high-coloured and yellow, and rather copious in quantity. The tongue was thickly covered with brown matter, and, as I have already intimated, he had scarcely a sound tooth remaining; the residue of them was covered with black sordes. He likewise complained of pain in the back and thighs.

At first seeing him, the pulse was 120, but before leaving it sunk to 100. His flesh was exceedingly flabby. The fat investment, indeed, was abundant, but it felt soft and

doughy. His head was painful and vertiginous; light was irksome, and the faculty of vision was often obscured by illusive striae, or a sudden appearance of *muscae volitantes*. On making an attempt to read, his mind immediately became confused, and if the head were laid low, giddiness ensued: therefore, night and day he lay in a half-sitting posture. He described the head as being affected throughout, but more particularly at the top of the forehead. A rough carriage was peculiarly distressing to him. Having gone through the inquiry that led to this detail, he presented a most pathetic entreaty to be with his mother; in this respect, he manifested a childlike importunity, and though it was quite clear that he was not in a state of lunacy, yet his faculties were greatly enfeebled.

From the history and the symptoms, no doubt could be entertained that the liver was enlarged, and its functions deranged; and I inferred also, that there was an erythematous condition of the mucous membrane throughout the alimentary canal. It was probable, that cerebral congestion had long existed, and that serous effusion had resulted. In consequence of his complete adynamia, combined with the pain in the course of the spinal canal, I suspected that the medulla spinalis was in the same condition as the brain.

The difficulty which would probably attend the management of the youth, and the uncertainty of the issue, were candidly disclosed to the patient's friends; nevertheless, feeling very desirous of rescuing the youth from his unhappy condition, they earnestly entreated me to undertake the case, and the patient promised to comply with every thing suggested for his recovery, if he might be allowed the attendance of his mother. The first object in the plan of treatment, was a trial of gentle ptyalism, at the same time keeping the bowels freely open. His diet was to consist of farinaceous articles and milk.

During the first fortnight, he remained a short distance from town, separate from his mother. He took a grain of calomel three times a day, and a dose of castor oil occasionally. The hair being closely cut off, cloths wetted with

vinegar and water were constantly applied to the head. By the end of a week, the gums were slightly affected, his tongue was rather cleaner, and there seemed a little amendment in the general circumstances. About this time, September 1st. I discovered that the efforts made to encourage his exertions, had been contravened by some visitors who had derided him, and charged him with hypocrisy; so that his removal to another situation was indispensable, before any hope of extricating him from his depressed condition could be entertained. He complained very much of the pain in his back, and to this pain he attributed the inability to move his limbs. Till his removal he was ordered to continue the medicine cautiously, and to have the back well rubbed with a stimulant embrocation. On the 10th he was brought to a lodging in an open situation, near the London Hospital, and was joined by his mother. His gums were still sore, but his bowels were not sufficiently open. Eight ounces of blood were abstracted from the loins by cupping, and a blister was subsequently applied. He was ordered to take five grains of calomel, every other night, and some castor oil the following morning. On the 11th he had one very offensive dark-coloured dejection, and the bowels were daily a little opened; but on the 16th he voided nearly half a chamber pot of dark and offensive matter, like undigested aliment—it looked as if it were fermenting, and presented no appearance of natural bile.

By the 17th the sickness had abated, and his countenance was rather more cheerful. He continued the same dose of calomel every other night, but instead of the occasional dose of castor oil, he now twice a day took an opening mixture, made alkaline with carbonate of soda, in doses sufficient to act freely on the bowels.

22d. The bowels have been kept freely open, the dejections have usually a dark green colour, they look oily, and are offensive. There is still a degree of soreness in the hypochondrium. He does not complain of much pain in the head, but says that an attempt even to listen to conversation, brings on a confusion and giddiness. All along he has eaten

food rather voraciously, though his attendants had been repeatedly prohibited from allowing it, and he states that now his appetite is more natural.

October 1st. The bowels have been kept so open, that he has had three evacuations daily; the dejections are generally loose, dark-coloured and fetid, but they seldom exhibit the fermenting appearance except after taking the powder, when they are also rather more consistent than at other times. A few days ago, a repetition of the cupping was suggested. He had great dread of this operation, and entreated delay; his desire was complied with, under the assurance that it must be resorted to, in the event of his not progressively improving. This condition afforded him an incentive to exertion.

Six weeks had now elapsed, and though he was somewhat more cheerful, and his head was rather better, yet he had made little progress in the use of his limbs. His inclination to eat was still rather voracious, and he chiefly sought animal food. I discovered, too, that his stomach rejected a very large proportion, by an act resembling that which returns the food in ruminating animals:—it was cast up by morsels into the mouth, and he spat it out. I was shown about two pounds of half-digested alimentary matter, which he had brought up after dinner and supper the previous day, and his mother informed me, that this was about half the quantity he had eaten. This discovery convinced me that we had not only a complicated and difficult case to manage, but had to combat additional discouragements from the indiscreet compliances of the attendants. It was peremptorily ordered that the quantity of aliment should be reduced to less than half he had previously taken.

Having gained considerable ascendancy over the patient, and as I had sufficient authority during my daily visits to carry any project into effect, a plan of bodily exertion was now undertaken. It must be recollected that the patient had not supported his own weight for nearly three years, indeed, during the whole of that period he had not even performed the most simple act in putting on his apparel,

nor had he turned himself in bed. We therefore commenced very low in the scale of labour, and his earliest efforts consisted in buttoning his waistcoat. At first even this muscular exertion was attempted with great tremor and difficulty, but by the end of a week he could succeed with tolerable ease. He was then taken out of bed and placed on his feet, in doing which he required great support; however, by degrees, we led him a few steps along the room. To all these efforts he had the utmost reluctance, but as they were executed under my own eye I felt persuaded that he did not affect much greater feebleness, if any more, than really existed. The effect produced was very remarkable. As soon as he was placed on his feet he became greatly distressed and agitated, and the most violent disturbance of the sanguiferous system ensued. The pulse was accelerated; the heart palpitated vehemently, and often beat with the utmost irregularity; and continued exertion, though in only taking a few steps along the room, produced a disposition to syncope, which was averted by laying him horizontally.

He was directed to take the powder every third night, and as much of the opening mixture every other day as would act freely on the bowels. At intervening periods he took some bitter infusion with carbonate of ammonia. The cold applications to the head were now discontinued.

On the 8th of October, as the bowels became more easily acted on, the powder was discontinued, and the appearance of the fecal evacuation became more natural. However, they were still brown and offensive, and sometimes contained a considerable quantity of a white granulated substance like concreted albumen. The abdominal soreness though lessened was not removed, and therefore twelve ounces of blood were withdrawn from the parietes of this part by cupping.

Although attention to the bodily indisposition was a primary object, it had appeared to me all along that the patient's mind required much discipline, for he seemed quite incapable of extending his ideas beyond objects of

present gratification. Voluntarily he made no effort, nor did he appear to entertain any desire of restoration. He was capable of perceiving that I had the means of abridging his pleasure, and finding me inflexibly firm to every purpose, he usually attempted the task assigned him, and care was taken that it should be within his capability. To combine, therefore, a little mental effort with his bodily exertions, he was requested to cut open the leaves of Pennant's Zoology for me, and to ascertain whether the plates were properly arranged, some of which were purposely thrown into wrong places. It was thought probable this might arrest his attention, and not only occasion him a degree of mental and bodily labour, but supply a new principle of action. The scheme did not fail, for though he advanced very slowly he was sensible of some pleasure in rendering me service, in which view his labours were regarded, and certainly for three or four years he had been a stranger to such an actuating motive.

By the 15th, having greatly reduced the quantity of food, the stomach rejected less, and he suffered but little from acidity. He walked more firmly, for instead of dragging his legs along the floor he was capable of extending them a little before him. However, though he walked only a few yards, and was assisted by two persons, the exertion still greatly accelerated the pulse, and distressed him considerably. As he had usually requested a hand to be firmly pressed on the abdomen when in the erect posture, a flannel girdle was made for him and afforded him much support. The mental faculties appeared in a state of improvement, as he evinced a capability of greater attention and thoughtfulness.

In addition to the alkaline and bitter medicine he was directed to take five grains of the pilula hydrargyri every other night, and eight leeches were applied to the abdomen. We proceeded steadily with these plans through the month of December. He took four ounces of decoctum sarsaparillæ twice a day in lieu of the bitters, continuing the opening mixture and pills. His mother remarked that constipation

occasioned greater inconvenience than formerly, for he was now sensible of being worse whenever the bowels were confined.

On the 17th of January I again ascertained that owing to his importunity he had been supplied with an excess of food, and, consequently, a considerable quantity of half-digested aliment was thrown up in the manner already described as constituting an example of human rumination. His general health was much improved, his countenance was more vivacious, and he manifested a degree of pleasure in social intercourse.

Though our efforts were uninterrupted, he had made but little progress in the use of his limbs. I repeatedly examined the back both with the hand and with a sponge dipped in hot water; but without discovering any traces of disease. There had undoubtedly been a degree of cerebral and spinal compression either from congestion or effusion, but the indications of this morbid condition had abated. There was extreme flaccidity and feebleness of muscles, in consequence of the long-suspended process of assimilation, and of their protracted inaction. We therefore were resolved to pursue our endeavours, adding a step or two every day, and exercising the arms by occasionally fixing a small weight to the wrists and requiring the patient to swing them for a given time.

Early in February we had the satisfaction to find him gaining ground. He was furnished with crutches, and after exercising himself in the room for a week he was occasionally led into the garden. Twice a day his back for some time had been strongly and perseveringly rubbed with a stimulating embrocation, and he felt conscious of amendment in this part. There seemed improvements in the powers of assimilation, and a general increase of muscular energy. He experienced much advantage from the use of stays.

As his mother lived in the country, I thought it might be important both with respect to mind and body, to exercise him in botany, and by exhibiting to him some specimens of the mosses, and allowing him to inspect a *hortus siccus*, he

began to feel an interest in the science, especially when his mother presented him with an excellent microscope. At first of course, his capability was very limited, but as often as it was practicable he took much delight in submitting the minute fructification of mosses to the field of his instrument. Every day he discovered something new to him, and the discovery allured him to renewed application. The anticipation too, of roving through the fields, collecting specimens of vegetable productions, proved a stimulus to his efforts in walking.

He continued the same medicines, but as his stools were very dark-coloured, I ordered for him two grains of calomel every other night, till he had taken four doses, and a glass of wine daily after dinner.

At the end of March his town residence was relinquished, and he went to his mother's, where he spent a few days, and walked on crutches, though with difficulty, to the houses of his friends. Lodgings were then taken for him on Epping Forest, with a view to keep up his mental and corporeal exertions, by indulging the recently acquired taste for botany.

On the 9th of May I visited him, and found him greatly improving in muscular strength and in intellect. He was capable of walking on his crutches for upwards of an hour, in the pursuit of wild flowers, and many of them he had dried, and preserved very beautifully. His powers of assimilation were greatly strengthened. He was still fat, and the parts beneath the fatty envelope were regaining their natural firmness, though by a very tardy process. Every thing advanced satisfactorily till the end of July, when his femur was fractured by an accidental fall from a horse he had mounted for the first time. During his protracted confinement he continued to use his arms in various mechanical and ornamental contrivances, and the energies of his mind were increasingly developed. As soon as the reunion of the fractured bone allowed him to walk he was quite willing to recommence his exertions, though he still required physical and moral discipline.

Early in the ensuing year, I prevailed upon him to attempt to write. The unsteadiness of his hand and the weakness of the muscles (owing to which he was unable to hold his pen steadily), occasioned him much difficulty; gradually, however, he surmounted this impediment, and in the first production which denoted catenation of thought, he selected a theme which did equal credit to his understanding and his heart. As soon as he became capable of reflection, he was appalled by a consciousness of the perils he had escaped, and of the contumacy he had indulged; and manifested a sense of lively gratitude to those whom he regarded as having endured his petulance or promoted his recovery.

In proportion as his capability of exertion, and as his resources of thought expanded, he showed a strong desire to fill the chasm in his intellectual acquirements. His digestive organs long required attention, and about two years elapsed before he was able to relinquish the support of a stick. However, he now walks firmly and with celerity; and with the exception of a constipated state of bowels, and of slight dyspeptic symptoms, enjoys good health. He is since married, and settled in business.

This instance shows how much may be effected by persevering efforts. Though the medical treatment varied somewhat in its nature, the principle kept in view was the same, and the different measures exerted successive influence in conducting to a favorable issue. It is, perhaps, not unwarrantable to infer, that this youth would have remained a burden to himself and family, and been utterly lost to society, had we not persevered, step by step, tutoring the mind, controlling and correcting the habits, as well as medically prescribing for disease.

Neuralgic and rheumatic pains from derangements of the digestive organs. .

In the former details an allusion was made to pains resembling rheumatism; I shall relate an additional case, in connection with an instance of genuine rheumatism, which originated from the same cause.

CASE 1.

On the 8th of October 1818, I was consulted by Mr. H——, thirty-four years of age. He informed me that he had been unwell during four months, and under the care of a neighbouring practitioner, and had occasionally consulted an eminent physician. Indeed, though he dated the commencement of actual indisposition, only a few months back, yet for a year and half he had not been so strong as formerly. He had been a widower for about that time, and previously underwent very protracted anxiety from the long illness of his wife. His countenance was sallow and indicated dejection, and in his person he was rather emaciated. He had no cough, but little headach, and his respiration was free, except on making a deep inspiration, when he felt a degree of constriction in the epigastric region. There was neither tenderness nor tension about the abdomen; the pulse was ninety-six and rather hard; his hands were hot towards evening, his spirits were depressed, his mind was irascible, and his sleep unrefreshing. The bowels were rather confined, and he had sometimes noticed, that the excretions from them were deficient in colour. The circumstances, however, on which he more particularly dwelt, were tremor of the upper limbs, and frequent attacks of severe gnawing pains in them and in the shoulders, the pain being generally more severe in the night. His plan of living had always been temperate.

Enjoining upon him the necessity of caution in his plan of diet, and of clothing himself warmly, I prescribed for him three grains of blue pill, and the same quantity of the extract of henbane, to be taken twice a day, with a bitter and aperient mixture.

On the 19th he reported himself better, his general health was improved, the pain was not so severe, but the tremor he thought undiminished.

He persevered in the use of nearly the same mixture, in conjunction with the following pills—

R Pil. ferri cum Myrrha 3j,
 Pil. Hydrargyri 9j: ft. pilulæ xvj;
 quarum sumat ij. bis die; et habeat extracti conii.
 grana iij. omni nocte.

After pursuing this plan for about three weeks he was quite well.

CASE 2.

A few years ago I was consulted by a gentleman who had passed a considerable time in tropical climates, and whose sallow complexion and other symptoms indicated that his liver was the seat of lesion—so frequent under these circumstances. The affection, however, that most annoyed him was erratic pain in the joints and limbs. Various plans were adopted to relieve him but they were all unavailing till he was subjected to an alterative mercurial course conjoined with bitters. In the same progression as the natural actions of the abdominal viscera were reestablished the pain abated, and ultimately was removed.

CASE 3.

On the 8th of March, 1823, I was requested to see a gentleman who usually enjoyed good health. He informed me that for some time his digestive organs had been deranged, and that this derangement was indicated by acidity, flatulence, and cardialgia. At length, without any apparent cause, he had become seized with violent pain in the sternum, wrists, knees, shoulders, and loins. He could make a deep inspiration without difficulty, and had no cough. There was a degree of tenderness in the epigastric region, the bowels were confined; and the pulse was 100.

R Magnes. Sulphat 3j,
 ——————Carbon. 9j,
 Aquæ Menthae 3xij,
 Syr. 3j. M. ft. haustus; sexta quaque
 hora sumendus, cum hydrargyri submuriatis grano
 uno.

On the following day he felt somewhat more comfortable as to gastric disorder, but the pain was unabated, and the pulse in the evening was full and hard, and upwards of 100. He was desired to continue the draughts but to omit the pills. The bowels had been opened. On the 10th he reported himself greatly relieved in every respect. He was directed to take a draught three times a day, and every other day half a grain of calomel with each.

On the 13th he had a slight return of the sternal pain, and suffered erratic pains in the joints. These were wholly removed in a few days by conjoining acetum colchici with magnesia and liquor ammoniae acetatis; and taking two grains of the hydrargyri submuriæ every other night.

Twice since this attack he has been seized with rheumatic affections, and each seizure was preceded by dyspepsia, and was speedily removed by treatment similar to that which has just been described.

Although there is considerable resemblance in the three preceding cases, yet I think there is an obvious difference between the two former and the latter. The latter I regard as an example of genuine rheumatism, and I might adduce many other cases of the same kind. I do not allude to cases in which the internal organs and the external parts became deranged by atmospheric vicissitude, or by some cause affecting both in common; but to those in which the derangement of the digestive organs preceded, and apparently produced, the affection of the muscular, ligamentous, or fascial textures.

The pain attendant on the other cases resembled rheumatism in the nature of the suffering, and in the parts affected. In both cases there was broken health, and ease was obtained only as health was restored. These pains, though they affect the moving powers, I believe are neuralgic. They generally occur under circumstances of impaired constitution, with heightened sensibility; and the treatment ordinarily successful in rheumatism will avail but little. I am at this moment attending a case of carcinoma mammae, in which the sufferings of the patient have been of the most afflictive character, from the painful affections to which I

have adverted. The carcinomatous affection had existed for seven or eight years without occasioning any very great inconvenience, but was in slow progress. The patient was then seized with sciatica, or at least a painful affection of the right hip resembling sciatica, and which at first I regarded and treated as such. Local applications, colchicum, Dover's powder, and turpentine, were employed, but were of no advantage; indeed, they at times distressed the patient, especially the turpentine. Without leaving the hip, though varying in degree, the pain seized the back as in lumbago. Occasionally there was pain in the shoulders, and at length the knee, of the same side as the affected hip and the cancer, was most distressingly painful, and the pain extended along the thigh in the direction of the larger branch of the anterior crural nerve. The abductor muscle of the eye became paralyzed. The utmost irritability of the whole nervous system came on, so that the movement of either leg, unless effected with the greatest care, induced a violent paroxysm of dyspncea. This case only bears upon the subject in question by connecting pains resembling rheumatism, occurring in the ordinary seats of that disease, affecting the moving powers, but often traceable through the course of nerves, with a suffering constitution and heightened sensibility—conditions very commonly resulting from chronic dyspepsia.

Hemiplegia and heightened sensibility from derangements of the digestive organs.

CASE 1.

In the month of December, 1809, a young lass, twenty-three years of age, consulted me relative to complaints more especially connected with the stomach. She had been the subject of considerable anxiety and exertion on account of the illness, and finally of the death of her mother. The symptoms to which she directed attention were distension and pain at the stomach, occasionally increasing till a

paroxysm, of hysteria was induced. She had nearly lost the use of the left side, which, however, was very painful. The bowels had been greatly confined, and there was pain in the right hypochondrium and head.

As there were evidences of debility, as well as an unhealthy condition of the digestive organs, she was directed to take some chalybeate medicine in a form resembling that of the *mistura ferri composita*, with occasional aloetic purgatives; and a blister was applied to the neck.

In the course of a fortnight she became greatly better, and I ceased attending. At the beginning of February, however, I was again consulted. She informed me that although the affection had greatly declined it had not wholly left her, but the symptoms had now become much worse. The left arm and leg were not under the control of the will, but they were the seat of the most exquisite morbid sensibility. Whenever the fingers or toes were touched, however slightly, violent convulsive action was excited, accompanied with pain at the stomach. If the pressure were continued the whole frame was thrown into the most tumultuous agitation.

The means formerly resorted to, were again successful, although several weeks elapsed before her health was fully restored, and the limbs had regained their natural powers. By a memorandum subjoined to the above case in my minute book, and dated May 11th, 1810, it appears that the young woman then remained well.

It is scarcely possible to read this case, without being reminded of the opposite condition *anæsthesia*, in which, whilst the muscles are perfectly subject to volition, sensibility is so totally annihilated that even severe injuries inflicted on the limb transmit no sensation to the brain. Both these states of the nervous functions, are strongly corroborative of the discoveries recently made, as to the nerves of motive and sensation, of *export* and of *import*, being distinct.*

* Heberden writing "De paralysi et apoplexia," notices this distinction. He says, "Ex ingenti numero paralyticorum, quibus adfui, septem omnino

It might, perhaps, be questionable, whether the derangement of the digestive organs was the cause of the affections of the limbs, or, rather of the nervous system ; and it is a question, which, perhaps, must be left undecided. Anxiety and exertion had some part in the production of the effects alluded to, but they appeared to act first on the gastric functions. It is one of those cases which show that when there appears considerable derangement in the functions of the digestive organs, mercury is not always an indispensable remedy. Nevertheless, it must be admitted, that an unirritating dose of blue pill, will often produce surprising effects in moderating sensibility.

CASE 2.

On the 13th December, 1824, I was requested to call at the house of a lady, whose natural disposition was very cheerful, and on my arrival, she smilingly informed me, that she was the patient. "However," she added, "I am in the most irritable condition, both as to mind and body that any creature ever was ; if a knife fall from the table I am thrown into the most violent agitation, and feel at the moment, as if another were to fall it would drive me out of my senses." She had long been the subject of hepatic derangement, and at the time this heightened sensibility commenced, she had a sense of fulness and of dull pain in the right hypochondrium, and of inability to lie on the opposite side : she considered herself three months advanced in pregnancy. She had formerly been relieved by some blue pills, and now

fuerunt in quibus hic sensus prorsus extinctus est. In tribus ex his motus aliquis supererat. Alteri tactus nunquam restitutus est, etsi motus aliquis rediisset. In quinto tactus post semiannum receptus est. In duobus reliquis, quantum intellexi, neque sensus, nec motus unquam recuperatus est." He alludes to a fact of a still more remarkable kind, the legs being in precisely opposite conditions—in one paralysis, and in the other anæsthesia. "Ramazzini refert se olitorem quendam curavisse paralyticum, in cuius altero crure extinctus omnis motus erat, illæso sensu, in altero abolitus sensus, movendi potestate integra manente." 'Comment.' p. 292.

entreated more of them. Five grains every other night, were prescribed for her, and twice a day a bitter infusion with soda. The relief was immediate, and in a week she was as well as usual.

Illusive sensibility.

There is a form of sensibility in which the outward expression and inward emotion do not correspond. This I believe, is not a common state. Two cases only have fallen under my observation, and they occurred in men advanced in years, and the circumstance I have adverted to, was the precursor of great failure of mental powers. Had the affection occurred to young females, it would have been regarded as hysteria. They laughed without pleasurable emotion, and cried without the feeling of sorrow. In one it preceded paralysis; in the other there were occasional signs of approaching paralysis, particularly vertigo, tremor, and loss of memory, but the physical powers gave way before any part became paralyzed. This gentleman had spent several years in a hot climate, and had been affected with the disorders incident to high temperatures; but he did not appear to have brought home with him a diseased liver. He was habitually constipated, and suffered much from flatulence. Subsequently, prostatic disease came on, and afterwards he became conscious of some defect of the mental faculties; but for a long time this was not apparent to other persons, nor did he then make any complaint of pain in the head. Alluding to the dulness of his mind, and his inability to read as formerly, he would often say that his brain was like mud. He had always been somewhat risible; but as he advanced in years, and made higher attainments in piety and self-knowledge, he held this propensity, (which he regarded as a failing), in greater check, though he retained considerable vivacity. But it was observed at the time alluded to, that his risibility was growing upon him, and that it was often excited by occurrences of a painful kind, and in the midst of his devotional duties: and frequently, owing to compunction, it

issued in a flood of tears. These were for a long time the only evidences of impaired intellect which his friends observed, and, at first, they thought very lightly of the circumstance. He, however, was very sensitive on the point, and it occasioned him great distress. In process of time, it advanced to such a degree, that he became afraid of speaking to his more distant friends. He would often laugh when at a place of divine worship, without the occurrence of any thing likely to excite levity. Even when asking a blessing on his food, only in the presence of his wife, he would laugh, though in the midst of his apparent mirth his grief was intense. When this propensity was at its greatest degree, his pulse was 80 and soft; he had no pain in the head, nor giddiness, but he described his head as feeling too full, and his brain he compared as before, to mud; so, that he could neither read nor meditate as formerly.

His chief complaints, were deficient appetite, confined bowels, and a most nauseous smell and flavor. Although he described this latter circumstance as affecting the organ of taste, he generally referred the sensation to the upper part of his nostrils, so that it appeared to be rather the effect of morbid action in the olfactory nerves, than the consequence of morbid secretions, or actions on the tongue. The opinion of its being ascribable to the nerves, was corroborated by the fact, that after the application of twelve leeches to the temples, he lost for two days, the fetid odour and the nauseous sensation on the palate. The benefit was but temporary and partial, for he continued to find difficulty in recollecting words, and this perplexity was increasing. His appetite lessened daily, he became excessively irritable, but his pulse was scarcely above the ordinary standard. A few days before his death he rallied, conversed with more energy, and spoke of his restoration. As to the head, he said that he felt as if the skull were scarcely large enough, but he had no pain. The next day he seemed less disposed to speak, and had more embarrassment. Though he varied a little from day to day, yet he gradually sunk: but his pulse remained undisturbed, and the immediate cause of death was not indicated by any of the symptoms.

The principal morbid appearances in the abdomen were calculi in the gall-bladder, distended urinary bladder from prostatic enlargement, and ossification of the abdominal aorta. The mucous coat of the stomach presented a blush of redness, and the glands were considerably enlarged. The glands in the duodenum and rectum were enlarged, and in the latter there were also distinct spots of ulceration, and to some of the ulcers a slough adhered.

The aorta was somewhat dilated at its origin, and the coats were hardened and exhibited opaque spots.

The dura mater adhered so firmly to the cranium that it was impossible to separate them without cutting round the membrane. The vessels of the pia mater were turgid, and the substance of the brain showed more numerous spots of blood than in the healthy condition. Each of the ventricles contained about half an ounce of serous fluid. The vessels pervading the membrane of the ventricle were very turgid, and presented a beautiful appearance; and the plexuses were vesiculated. There was a little fluid at the basis of the brain. The substance of the brain was rather hard, but this was more especially the case with the tuberculum annulare.

Affections of the pelvic viscera from derangements in the digestive organs.

The influence of the digestive organs in the production of sympathetic affections of the pelvic and thoracic viscera is familiarly known to medical practitioners, and these sympathetic affections are often exceedingly distressing to the patient. The functions of the uterus are particularly liable to be affected by an unhealthy condition of the alimentary canal, and of the other organs subservient to digestion. Many such cases, under a diversity of forms, fall under the practitioner's observation, and whatever means he might employ the uterine actions will not be restored till the removal of the primary disease. I have before me minutes of cases of amenorrhœa in which the suspension of menstruation was occasioned by disease in the liver, or in the spleen;

or by chronic inflammation of the intestines. It would occupy too much space to particularize these cases, and therefore I shall confine myself to a solitary instance.

CASE 1.

Amenorrhœa.

A young woman twenty-three years of age, resident at Ilford, consulted me in March, 1804, on account of amenorrhœa. She had been unhealthy for two years. During the first year she had irregularity of menstruation, and at the end of that time total suppression took place, and continued till the time of my seeing her, a short time previous to which she had been the subject of ague. During the whole of this period she had suffered pain in the head and back, dyspepsia, torpid bowels, difficult and hurried respiration, and at the time of my interview with her the skin presented that chlorotic appearance arising from a deficiency of red blood, so common under these circumstances. I prescribed for her as follows.—

R Hydr. Subm. gr. xiv,
Ext. Col. C. 3iv,
Saponis 3j,
Ol. Menthae P. gutt. x. ft. pilulæ
xx. quarum sumat ij. vel iij. alterna quaque nocte.

R Mist. Ferri C. 3xvss,
Sp. Aeth. N. 3ss. M: cuius capiat
cochl. maj. iij. bis die.

On the 28th she informed me that her general health was much improved, and this was attested by the more healthy expression of her countenance. She pursued the same means, and on the 11th of April informed me that her amendment was still progressive, but that her respiration

continued troublesome, and her pulse was quick. At this time there was slight appearance of catamenia which continued for two days. By the 18th her strength was much recruited, and the countenance greatly altered for the better. She was now directed to continue the mixture for a week, and then to omit it till it should be ascertained whether the menstruation would occur at the next period. Early in May the secretion took place naturally. Her countenance was healthy, respiration more free, and her strength was so far restored that she described herself as being quite well. The pulse, however, remained somewhat hard and quick, and this circumstance fully explained the dyspnœa. In a short time as her strength advanced the irritative action of the heart ceased, and with it the dyspnœa. She remained well for ten years.

On the 19th of July, 1816, she solicited my advice, and again informed me that she had not been well for two years, within which period she had been repeatedly under the care of a respectable medical gentleman without deriving advantage. In general the bowels were constipated, but when occasionally in the opposite state she uniformly felt better. She had sometimes been affected with pain in the right hypochondrium, and this, at times, was attended with considerable tenderness; but she had no pain at the time of consulting me. Her appetite was greatly impaired, her countenance yellowish, and her rest much disturbed by unpleasant dreams. The menstrual functions were extremely irregular, both in the periods, and in the appearance of the discharge; and she described herself as feeling generally ill.

R Hydr. Submuri. gr. iij,

Pulv. Jalapii gr. x. M. ft. pulv.

alterna quaque nocte sumendus.

Habeat misturæ ferri compositæ $\frac{3}{4}$ j. ter in die.

She visited me again on the 26th, and in the interval had taken three of the powders, and had continued the mixture as directed. The first powder occasioned twelve dejections

and the others six or seven. She felt ill on the day after taking each powder, but independently of the uncomfortable feelings occasioned by the medicine, she represented herself as being better than she had been for two years. The pain had ceased, her appetite was good, her countenance was cheerful, and her general feelings were comfortable.

She was now directed to take half the former dose of opening medicine every third night, and to continue the mixture as before.

In this case the constipation had existed so long that it seemed prudent to act freely on the bowels at first, and gradually lessen the strength of the purgative. The chalybeate medicine, I believe, acted merely as a tonic, and the restoration of uterine action was not the result of any emmenagogue property. One instance has been related,* in which it appeared to produce a powerful effect on the pudendum, and adjacent parts, but I have never met with any similar effects.

CASE 2.

Abortion.

Some years ago I was consulted by a married lady who with her first child had completed the term of utero-gestation, but afterwards she miscarried three or four times successively, at the third or fourth month. Not only was she exceedingly annoyed with sympathetic gastric irritation as soon as pregnancy commenced, but she experienced much acidity and flatulence in the interval. There was a deficiency of hepatic secretion, accompanied sometimes with pain in the right hypochondrium, but more frequently in the region of the right kidney, where it often was extremely violent. I prescribed for her five grains of blue pill every other night, and some infusion of calomba, with carbonate of magnesia, twice a day. Her health became greatly improved, and she has since

completed the term of utero-gestation five or six times, with tolerable comfort. It happens once or twice during pregnancy, that she has a recurrence of what she designates "the old pain;" namely, that in the region of the kidney, but the pain is removed by taking a few doses of the blue pill with alkaline aperients.

Dr. Merriman, in his valuable synopsis of difficult labours, mentions a case of uterine haemorrhage, previous to labour, for which occurrence, he says, no probable cause could be assigned, except indigestion.

Hysteria.

Paroxysms of hysteria, are frequently connected with indigestion. These attacks appear under an almost endless variety of form. The ordinary character of convulsive sobbing or laughter, and the globus hystericus, are well known; but there are varieties, with respect to which, the evidence is not always so determinate.

CASE 3.

A short time ago, I had a young lady under my care, whose affection, though distinctly hysterical, presented some anomalous or rather unusual appearances, and seems to have originated from dyspepsia. For some time her countenance had frequently been yellowish, and occasionally she had nausea; but, notwithstanding these circumstances, she considered herself in pretty good health. She went on a visit to the house of a friend, where the hours were not so early, or the diet so unsophisticated, as she had been accustomed to, and as the stomach needed, so that considerable flatulence and acidity resulted; and afterwards she was attacked several times a day, with an involuntary fit of laughter, or with a strong disposition to cry, but which she controlled by a powerful effort. When a few days had elapsed, she was seized twice or thrice daily with a

sensation of the most extreme exhaustion, and an inability to speak, though she retained perfect consciousness, and the colour of her cheeks did not vanish as in syncope. These attacks lasted for a quarter or half an hour, and seized her at the most uncertain periods of the day, and occasionally at night. Menstruation had occurred somewhat too frequently, and it is probable, that she had been exposed to an excess of mental excitement.

By recurring to regular hours, and simple diet, and paying the needed attention to the assimilating organs, the paroxysms gradually ceased, and with them the morbid excitability.

CASE 4.

Some years ago, a girl about seventeen, of a delicate habit, and whose catamenia were not regular, was under my care for several months. On any little fright, or agitation, and sometimes independently of any apparent cause, she would fall perfectly motionless, without any great disturbance of the heart, but with inability to swallow, on account of the ordinary hysterical affection of the throat. I have known her often continue in this state for several days, and more than once for a week, without taking any sustenance. She occasionally wetted herself a little, but secretion was nearly suspended, and neither blisters nor sinapisms nor volatiles appeared to avail. The state of health on which these attacks depended, was at first exceedingly obscure. She was the subject of a chronic form of dyspepsia, the abdomen enlarged, so that on consulting a physician in town, he wrote to me and asked, "si potest ut utero gerat?" Matter formed in the most insidious manner, and the abscess burst into the stomach, and she ejected by vomiting and purging some quarts of pus, and then recovered.

Although in general when the functions of the uterus are suspended, in young females, they present the appearance of deficiency of red blood and defective nutrition, sometimes the reverse of this happens. There appears redundant

deposition even though the digestive process is not healthily accomplished. At least, the organs of waste do not seem to keep pace with the organs of supply.

CASE 5.

On the 16th of May, 1817, I was requested to see a young lady, nineteen years of age, in consequence of her having been seized with a fit of hysteria which threatened suffocation. She had scarcely at any time been regular, and within the last eighteen months had become distressingly corpulent, but her face was ruddy and vivacious. Though she had a tolerably good appetite, yet her bowels usually were constipated, and she was a frequent sufferer from headache. Within the fortnight preceding this attack the symptoms had been more decidedly dyspeptic—the appetite was impaired, there was great flatulence, and constipation. Her habits were rather sedentary. The pulse at the time of the paroxysm did not exceed seventy-five.

As soon as the power of swallowing was recovered, the first indication was to act on the bowels.

Habeat Hydrarg. submuriatis et pulveris Scammonii 2 gr. iij. alterna quaque nocte, et Magnesiae sulphatis 3ij. sextis horis.

By the 19th the symptoms were much relieved, but there still remained great oppression.

R Ammoniæ Carbon. gr. v,
Mist. Camph. 3ijj,
Tinct. Humul. Lup. 3j,
Infus. Calombæ 3j. M. ft. haustus;
ter die sumendus.

Three days afterwards I found that the oppressed state of the stomach was relieved though not removed. She had continued the powder every other night, but it had not

adequately affected the bowels. The pulse had risen to about ninety, and there was still some headache.

R Pulv. Rhæi,
 Potassæ Carb. $\frac{1}{2}$ gr. v,
 Magnes. Carb. gr. x,
 Aquæ Cinn. $\frac{1}{2}$ ss.,
 Infus. Calombæ,
 Aquæ puræ $\frac{1}{2}$ ss. M. ft. haustus;
 ter die sumendus, et continuetur pulvis alterna
 quaque nocte.

She daily improved and by the 25th was nearly well, but she persevered in taking the draughts, and an active purgative every other night, not only on account of the constipation but with the hope of lessening the obesity.

On the 29th she was tolerably well, and discontinued the draughts, but took four grains of calomel every other night, and a rhubarb and magnesia draught the following morning.

Early in June the menses flowed naturally. As soon as this period elapsed the lady was enjoined to take exercise freely, and to encourage her in this her friends engaged lodgings for her at Hackney, whence she walked to town and back daily, in addition to other exercises. By the 19th she was quite well, and mentioned that the mammae which for some time had been acquiring rather a preposterous size, had become much less, and were consequently looser in texture. The bulk of other parts also considerably decreased, though she still remained somewhat lusty.

The urinary organs.

The sympathy which subsists between the digestive organs and those concerned in the secretion and excretion of urine is familiarly known. Diabetes mellitus not unfrequently arises under circumstances that must clearly refer

the cause to disease in the digestive organs, with little disease in the kidneys except heightened vascularity.

I shall relate only one instance of this kind.

CASE 1.

Diabetes mellitus.

Mr. W——, about sixty years of age, had several times been my patient on account of derangement in the digestive organs, more especially of the liver, and constipation. In the summer of 1822 these symptoms were more severe than before, and besides this his legs swelled and his strength failed. He regained a degree of power by the means employed—the secretions of the liver became more healthy, the tongue less furred, and pain in the right hypochondrium, which had been troublesome, ceased.

Though I occasionally saw this gentleman, and observed him rather tottering, I was not consulted respecting him till Sunday, May the 11th, 1823, when I was informed that two months previously, feeling very unwell, he consulted an eminent physician who found him then labouring under diabetes, connected with great derangement in the assimilating organs. He prescribed for him some aperient medicine consisting of sulphate and carbonate of magnesia, and advised his going into the country, whence he returned no better the day before I saw him. He voided about a gallon of urine a day. His thirst was excessive—tongue brown and dry—bowels inclined to constipation—but there was no pain in the loins, nor at the extremity of the penis. The urine was clear, but on evaporation left a copious sediment of extractive and saccharine matter. The appetite was impaired and rest disturbed. In consultation with the physician we agreed that the disease was too confirmed, and that the powers of the constitution were too much injured, to allow of any prospect of recovery. He gradually sunk, and died on the 20th of May.

Dissection. The abdomen was tumid. The vessels of

the brain and of the spinal marrow were in a slight degree more loaded than usual, and a small quantity of serous fluid was effused. The vessels of the intestines were so turgid as to give a tinge of redness to them, but the turgescence was greatest in the mucous coat, which was very red. It was the redness of congestion, not of inflammation.

The liver was healthy, except that on being cut into the parenchymatous structure presented some circular spots of a paler colour than the circumjacent substance: its bulk was rather augmented.

The kidneys were covered with a rather large quantity of fat; indeed, a very large quantity in proportion to the emaciated state of the body; and this fatty substance adhered very closely to the substance of the viscera. The whole of these parts seemed to be injected with blood. The kidneys were a little larger, and rather more flaccid than in the healthy state.

This disease affords perhaps one of the most extraordinary examples of morbid change in the vital actions. The diabetes insipidus may unquestionably arise from disturbed action in the kidney itself, under peculiar states of mind and excitements of the nervous system generally, or of the kidney itself from local irritation: but the diabetes mellitus, in which often a large quantity of saccharine matter is evolved in the kidney, appears necessarily to involve defective assimilation or some peculiar morbid action in the digestive organs, in reference to vegetable substances. It does not appear that the elaboration of the saccharine matter takes place in the alimentary canal, for the sugar has not been detected in the blood; and it is a most curious fact that the vegetable matters, the elements of the saccharine matter, circulate together, and are submitted to the vital actions of other viscera, but combine in no other organ than the kidney. The morbid action in the kidney necessary to effect this combination, often leaves an impression that is scarcely discernible even to an eye accustomed to the detection of minute organic lesions. The appearances generally found are heightened vascularity, enlargement,

and flaccidity: but the kidneys have been found in different degrees of lesion from softening to almost total destruction.

The sympathetic and splanchnic nerves have been found enlarged in this disease; and this is not surprising when we recollect how much the nerves are concerned in secretion.

We need not, however, refer to diabetes to prove the sympathy existing between the digestive organs and the kidneys. Every individual must have observed how greatly the urinary secretion is influenced by the state of these viscera; and every practitioner knows how unavailing the treatment of many urinary diseases will be if the practice have not a special reference to the restoration of healthy vital actions in the abdomen.

The influence of the digestive organs in producing disease in the mucous membranes is sometimes strikingly observed in the irritable bladder, and more especially in the irritable and spasmodic urethra. The following case, whether it originated in the disorder of the digestive organs, or whether they became sympathetically affected, shows how greatly a morbid condition of the urethra is influenced by gastric derangement. The choice of aperient medicines under these circumstances is not unimportant, for when alterative mercurials and the more stimulating purgatives have failed, I have known magnesia extremely useful. We are therefore not to suppose that the local disease is unconnected with deranged liver or alimentary canal, if it do not give way to the ordinary forms of treatment.

CASE 2.

Stricture of the urethra.

In August, 1822, I was consulted by Mr. G—, relative to some disease in the urethra. He informed me that he had experienced difficulty in making water for some years, and had taken alterative and purgative medicines without

any good effect. Among other practitioners whom he had consulted he applied to a surgeon who is deservedly ranked among the highest ornaments of the profession. This gentleman after attempting to pass a bougie, (and prefixing an oath, which is a sadly too common antecedent with him) said that it was "a bad case of stricture and spasm." The patient thought that decorum and humanity were somewhat violated, and though for a time he followed the plan laid down he never felt inclined to hazard a second insult.

At the time I was consulted the tongue was furred, and the bowels were irregular. The young man was very timid respecting the introduction of the bougie, not only on account of the pain it occasioned, but the haemorrhage that had resulted. On attempting to pass one I found the whole of the canal exquisitely irritable, grasping the instrument very forcibly, and at about five or six inches from the orifice there was a stricture. When, at a future period, this had been surmounted, another was discovered at about an inch beyond it.

Though the instrument was passed with the most gentle efforts, yet a considerable quantity of blood followed. He continued to take alterative doses of opening medicine, and either a bougie, a catheter, or a sound was introduced every third day for a month, with no other benefit than overcoming the first stricture, and reducing the spasm. It generally happened that when the instrument was withdrawn some blood escaped, but it seldom exceeded a few drops till the 15th of September. The instrument had not been introduced for two days, when, after a rather long walk, haemorrhage came on spontaneously, and he bled unceasingly for twelve hours. Several hours had elapsed before I was called in. His pulse was rather full and therefore I bled him, and prescribed some infusion of roses with Epsom salts; and cold water was applied to the pubes and perinæum. Under this plan the haemorrhage soon abated, and in a few hours wholly ceased.

At the time this haemorrhage took place, he was

experiencing gastric acidity, and therefore, after it ceased he was directed to take carbonate of magnesia in mint water, and as the bowels were confined, an active purgative also was recommended. The introduction of the instrument was not attempted for a week, though he often had great difficulty of micturition. On passing the catheter to the stricture it was evident that there was less spasm. There was excessive tenderness in the situation of the prostate gland, but no perceptible enlargement. Leeches were applied to the perineum, warm fomentations were used, opiate suppositories introduced at night, five grains of blue pill were directed to be taken every other night, and a combination of magnesia and Epsom salts with tincture of henbane, and after a few days, with tincture of calomba, three times a day. The mercurial appeared to irritate him, and therefore was discontinued.

On the 27th he was in extreme distress, from inability to void his urine, and he noticed, that the increased difficulty was always preceded by an increase of gastric irritation. I visited him in the evening, the bladder extended considerably above the pubes, his pain was extreme, and was accompanied with violent straining efforts at expulsion. The spasmodic action of the urethra, was so great, that it was impossible to pass a catheter even to the stricture. An enema containing a dram of laudanum was injected, and he also took a rather free dose every two hours. The attendants were directed to apply ten leeches to the perineum, and to put him into a warm bath as soon as they came off.

In the early part of the night he voided about a teacupful of urine, but the accumulation in the bladder was increasing, and at seven a. m. on the 28th, it extended nearly to the umbilicus. He had less pain, but the attempt to pass the catheter or bougie was equally unsuccessful. His bowels had been twice opened. He continued the same measures, and preparations were made for puncturing the bladder, but in the interval the water began to dribble, and in the course of the day he became relieved from the retention. For some days, however, there remained great

inflammation about the neck of the bladder and the prostatic part of the urethra, so that it was necessary to repeat the leeches; and an evaporating lotion applied to the perineum appeared to be very beneficial. He took saline or alkaline aperients. For a long time he only made water in drops, or in a very small stream, and in the whole course of the treatment, it was necessary to have a constant reference to the state of the digestive organs. Occasionally he was benefited by a small dose of blue pill, especially when combined with extract of henbane; but magnesia and rhubarb, or magnesia with Epsom salts, or the neutral salts alone acted best with him.

Gastric acidity, is not an unfrequent attendant on an irritable state of the urethra, and magnesia when given in mint water alone, or with a little henbane, is often a very useful remedy. Still it must be recollected, that the correction of acidity, is merely the relief of a symptom, or an effect of impaired digestion; although it is also the neutralization of an irritant that often occasions much constitutional disturbance.

I have repeatedly known leucorrhœa, and an eruption of excessively irritable papulæ at the mouth of the vagina, constituting prurigo pudendi muliebris, arise from a deranged state of the digestive organs. Sometimes these affections, particularly the former, may be concomitant with the dyspepsia, both having a common origin, and indicating an asthenic condition of the body.

Affections of the anus.

That affections of the anus should arise under circumstances of impaired digestive power, cannot excite surprise. And when they are produced, it will not always be sufficient to remove the primary cause; indeed, not unfrequently, the local disease becomes a source of so much irritation, that it perpetuates those disorders on which it at first depended.

In March 1823, I was consulted by a respectable woman,

respecting an affection of the anus, which had rendered her life exceedingly uncomfortable for two years. She ascribed its origin to constipation, which, in the efforts to expel hardened feces, led to protrusion of the bowel; but for a long time it admitted of being replaced. At length there was a small permanent protrusion, or an excrescence, which frequently occasioned great distress, especially in walking, or after confinement of bowels; and sometimes it produced febrile excitement. The irritation was somewhat moderated by keeping the bowels open.

She married under these circumstances, and became pregnant, and was advanced in utero-gestation, when she applied to me respecting the anal disease. On examination, I found that the lining of the anus protruded about half an inch, and was of an extremely florid colour, like healthy granulations. It was exceedingly irritable, so that a slight touch occasioned considerable pain, and caused a flow of blood. It would not admit of replacement.

As she was rather a susceptible woman, I advised her to use palliatives, till after parturition, and then to have it removed. She took five grains of blue pill every third night, and some lenitive electuary occasionally, applying to the part a mild anodyne ointment. Her sufferings were moderated by these means, but she completed her term very uncomfortably.

About a month after her accouchement, I was again applied to respecting the disease, which continued to be a source of ceaseless irritation and anxiety. Laying her on her side, and a nurse drawing up the nates, I removed the whole of the protruded part close to the anus, drawing, indeed, the lining down as far as possible. As the vessels were extremely turgid, considerable haemorrhage ensued, and was encouraged for a time, by warm fomentations. The application of dry lint, afterwards, completely arrested it, and in about a week she was quite well. The relief experienced was really surprising. Her health was improved, and having been relieved from a perpetual cause of anxiety, as well as an almost constant source of pain, she pursued

her family duties with a degree of cheerfulness which she had not previously felt. She was directed as to the future management of her bowels, and has had no return of the complaint.

Affections of the mouth and nose.

Sympathetic derangements, may often be observed in the mucous and cuticular lining of the mouth and nose. Though the lining of the mouth is a cuticular membrane, as is clearly evinced under some circumstances of disease, yet it appears to perform the secreting office of mucous membranes, and to be rather subject to the diseases of the mucous membranes than the cuticular. Some of these affections cannot be regarded as sympathetic, but arise from continuity of surface.

Diseases of the gums often originate from this cause, and are sometimes of a very distressing nature. Occasionally the affection of this part, or of the lining of the mouth is connected with some morbid process in the mucous membrane of the stomach and bowels, and in other mucous membranes, showing, that under some conditions of the system, the vital actions of similar structures, in different parts of the body, suffer together.

CASE. 1.

A young woman, married and having one child, consulted me on the 24th of March, 1817. She was delicate at the time of bearing this child, and did not fully recover afterwards. She had loss of appetite, flatulence, severe distension after eating, slight tenderness of the abdomen, unsettled bowels, dejection of mind, palpitation of the heart, and headache. These symptoms were accompanied with wandering neuralgic pains in her limbs, increasing at night. She was also affected with profuse leucorrhœa, and within three days before consulting me, the mouth ulcerated. The *mistura eretæ*, combined with small doses of sulphate of

magnesia, and an occasional unirritating dose of mercury, with removal into the country, and a careful regulation of diet soon restored her to good health. At the commencement of the treatment I gave her one free dose of calomel, (five grains) but afterwards very small doses, and at long intervals. I have already intimated, that not unfrequently advantage is derived in chronic forms of dyspepsia, by exciting rather powerful action at first—then maintaining gentle action by the most unirritating means.

In this case there was first impaired digestion, and its cause appeared to be principally seated in the mucous membrane; the affections of the vagina and of the mouth followed; but, whether they were the direct consequences of the disease of the digestive organs, or resulted from the continuance of the cause which induced that disease, it may not be easy to decide.

Diseases of the gums are of great importance, if we consider the pain they occasion, the sordes their secretions deposit, the decay of the teeth, and the intolerably fetid odour they impart to the breath; but they are important, also, as an index of other morbid states. When the gums are habitually tender it not only is necessary to watch the excretions and keep the bowels duly open, but the selection of the means of effecting these purposes, conjoined with attention to the general health, is of great moment. Sometimes these affections speedily subside after the employment of alterative or purgative medicines, but at other times recovery from a state of extreme debility must be effected, before their removal can be anticipated; and it not unfrequently happens that even the mildest mercurials can scarcely be borne. Of this fact I might relate many examples, but I shall limit myself to one.

CASE 2.

In July 1812, I was requested to see Miss C—, sixteen years of age, who was visiting at the house of a friend in my neighbourhood. Her general health was not good, chiefly owing to an irregular state of the bowels, and impaired

digestion. A few days before I saw her, she had been using a tooth brush, which was harder than she was accustomed to use, and the gums became very sore. Had this irritation been applied in a healthy state, it is probable, that it would have been harmless, if not beneficial ; but under existing circumstances, diseased action supervened, and extended with great rapidity. When I saw her, the lower lip was much swollen, and a sloughy phagedenic ulcer the size of a shilling, occupied the space between it and the gums, involving the gums anterior to the three front teeth, which were loosened. The pulse was very quick, the heat of the skin considerable, and the bowels were confined.

Previous to this affection of the mouth she had been using mercurial remedies occasionally, in alterative doses, under the direction of an eminent surgeon, but she had not been taking mercury so recently as to warrant the supposition that she was salivated ; indeed, the appearance of the disease was not that of ptyalism. She was directed to take a rhubarb draught occasionally, and bark and aromatics every six hours. She gargled the mouth frequently with a decoction of bark and tincture of myrrh. She persevered in this plan for about a fortnight, during which her health improved. The ulcerative process was stationary at the end of the fortnight, although the ulcers did not show a disposition to heal. Sulphuric acid was now combined with the cinchona, whilst the same aperient was continued. A favorable change in the appearance of the ulcer rapidly ensued ; the sloughs were thrown off, the ulcer healed, and the teeth became firm.

She informed me that she had undergone two similar attacks from the same cause, though she resided in the country, and had been paying constant attention to herself by alterative and aperient medicines to counteract a tendency to constipation, and to improve her digestive powers. I advised her to cease from the employment of mercurial remedies, under an idea that they rather tended to weaken the system than to repair it, to continue the bark and acid for a time even after her apparent restoration ; and to take a

little rhubarb, when she required an aperient. She followed this counsel—her general health greatly improved—she had little or no trouble with the bowels—and the gums ceased to be morbidly irritable.

In some constitutions the teeth are speedily loosened by mercury, without ptyalism, and if the constitutional powers are greatly weakened, they probably will not refasten. I am at this time attending a delicate woman, whose teeth became loose several years ago, apparently from the effects of mercury, given in very mild doses on account of slight hepatic derangement. This may be attributed to its inducing the erythematous state with unusual facility. She was not then above thirty-six years of age, but of a strumous and phthisical habit. Her teeth remained loose and greatly distressed her till two years ago, when some of them dropped out. Mercurial remedies unless given in the smallest doses, and at distant intervals, continued to produce powerful effects, and have only been resorted to when the suspended action of the liver appeared to require the excitation of that remedy.

Relaxation of the velum and uvula.

One of the most troublesome chronic affections of the mouth is relaxation of the pendulous palate, with elongation of the uvula, and it generally originates from derangement in some of the organs concerned in the digestive process. This is an affection from which an intimate friend of mine has at various times been greatly annoyed. Slight derangement in the bowels, with itching at the anus, has usually preceded the commencement of the affection in the fauces, and the first symptom is a sensation of something resting upon the upper surface of the velum, exciting to most unpleasant efforts for its removal. Gradually this sensation increases, the velum loses much of its contractile power, the uvula elongates, and then in addition to the inconvenience first alluded to, there is the sensation of a foreign substance resting on the back part of the tongue, sometimes finding

its way into the rima glottidis. There was some increase of redness along the velum and uvula. Few persons can conceive how extremely teasing this disease is, more especially in speaking or reading.

The patient in this instance was extremely averse to medicine, and as he felt himself well, and regarded the disease merely as a local affection, the whole reliance for a time was placed on applications to the part itself. These applications consisted of various kinds of stimulants, such as decoctions of capsicum and pyrethrum, held in the throat for a considerable time, mineral acids applied to the part by means of a pledge of lint, the lunar caustic, and numerous others. With respect to the caustic, I would observe, that had the affection been confined to the uvula, it is probable it would have cured it. The method of applying it, was by making a longitudinal streak, from the base to the apex. On one occasion, when the patient was exceedingly annoyed by the length of the uvula, he ventured to apply the caustic around the apex. Nothing could have been more unfortunate, for as the caustic hardened the parts touched with it, the distress was heightened in a tenfold degree, and continued for two or three days, when the hardened surfaces sloughed off. Finding that no local applications were of any avail, he took an active dose of calomel and jalap, and afterwards a grain of calomel every other night, using at the same time a gargle of distilled vinegar and water. By persevering in this plan for about a fortnight, the affection became much better and progressively ceased. It has twice recurred, under the same circumstances of constipation, flatulence, and prurigo, and was removed by the same means.

This was the most strongly characterized instance of relaxation, or rather of chronic inflammation of the velum and uvula, dependent on the digestive organs, which I have seen, but several other instances have occurred to me in practice, and the disease was removed by similar treatment. I have never found occasion to extirpate any portion of the uvula, nor seen a case in which it was much elongated, without the velum's participating; so that had a portion of

the uvula been cut off, it would only have remedied part of the inconvenience. Under other circumstances, the uvula becomes much enlarged. From the effects of cold I have known it so swollen and vesiculated, as to threaten the patient with suffocation. This, however, was acute disease, and was subdued by active purgatives, copious abstraction of blood by the lancet or leeches, and vesication.

Affections of the nose.

The affections of the nose which arise from derangements of the digestive organs, are of various species. Not unfrequently pustules form both on the Schneiderian membrane and externally. Sometimes there is fulness of vessels exciting almost unallayable itching, or producing haemorrhage. Sometimes polypi form; and at others the whole lining membrane appears to become denuded of its cuticular covering, and presents a red and very irritable surface, always very troublesome, and occasionally attended with considerable pain. This form of disease so far as I am aware has not been specifically noticed. The following is an example of it.

CASE 1.

Mr. B——, nineteen years of age, tall and of slender make, called on me on the 21st of June, 1825. His nose, he said, enlarged, and was very sore within, and had continued in this condition for twelve months. Although the nose was rather broad, and the alæ were thick, yet there was nothing in the appearance externally that would have led me to consider it diseased: but on examining the nostrils I observed that the Schneiderian membrane presented a red and irritable aspect, precisely the appearance of the cutis when the cuticle has been removed by vesication. It looked most irritable on the spongy bones. The young man complained of the pain's extending to the cheeks and forehead,

showing that the membrane lining the antrum maxillare and the frontal sinuses was in the same state as that expanded on the nasal cavities. He looked tolerably healthy, but his bowels were habitually confined; he had considerable flatulence, slight inconvenience at the stomach after eating, and his tongue was furred. He was an assistant in a school, and had no exercise except a little walking in the intervals of his duties. He was directed to take five grains of the blue pill every other night, and early in the morning after taking the pill to take two drams of Epsom salts in an ounce and half of senna infusion. He was directed to inject into the nostrils a weak solution of sulphate of copper.

On the 30th he called again and reported himself much better. The membrane was less red. He next called on the 5th of July, when his report was less favorable. The nose was not quite so well, and he had considerable pain in the frontal sinuses. He was directed to continue the same plan, and also to take some bitter infusion with soda. Though the injection had lessened the irritability of the membrane in the nose, yet it did not fully answer the purpose on account of its diffused and uncertain application. The occasional application of a medicated vapour was suggested. After persevering on this plan for a fortnight or three weeks he became comfortable; but as his engagements confined him to the house he had still occasion to guard against constipation to which there was a tendency.

I have seen precisely the same disease in the nasal cavities apparently produced from taenia. On the removal of the intestinal irritation the affection of the nose was speedily cured.

We must always make a distinction between parts sympathetically affected, and those affections that are merely concomitant. Of the latter we sometimes have examples between the digestive organs and the nose, and the treatment ordinarily relied upon to restore the digestive organs to a healthy tone will not be successful. This may be exemplified by referring to the strumous diathesis.

CASE 2.

A young man, seventeen years of age, consulted me on the 20th of March, 1821. He informed me that about two years before some spots arose on his nose, and ulceration ensued. He had tried a variety of plans, and for ten months had regularly attended a respectable surgeon at one of the London hospitals, but the progress of the ulceration was not arrested. During this time his stomach and bowels had been in a rather unsettled state, and the attention of the surgeon had been directed to their recovery, as well as to the cure of the ulcer. At the time I saw him the whole end of the nose was in an ulcerated state, and the ulcer extended over each ala and through the right nostril. He had also an indolent ulcer, the result of chronic abscess, on the right parotid gland, which was considerably enlarged, as were also the sub-maxillary glands. I believe it is not very common to have the salivary glands affected in strumous habits, but they were so here. His bowels were constipated, he had no desire of food, and from childhood there had been an aversion to animal substances. He was moderately tall and was not without flesh, but he was weak and there was a deficiency of mental energy as well as of bodily strength. The ulcer on the nose was foul and irritable, its surface was irregular, and its border thickened: besides which the contiguous parts were of an unhealthy and inflamed aspect. I directed for him, at first, five grains of the blue pill every other night, and an ounce and half of bitter infusion twice a day.

The applications to the nose and cheek were a very weak solution of cupri sulphur during the day, and at night the following ointment:

R Cupri Sulph. (pulv. subtil.) 3j,
Ung. Sperm. ceti 3iii,
Ol. Ricini 3i. M.

The necessity of his taking a larger proportion of animal food was also enjoined.

On the 24th he was looking rather better as to general health. The ulcer had a less irritable appearance—the circumference was not so elevated—the prominences within the ulcers were flatter—and the circumjacent inflammation had abated.

On the 2nd of April he reported himself additionally improved. The lotion was made slightly stronger in the following formula.

R Cupri Sulphatis gr. viii,
 Aque Rosee 3vij,
 Tinct. Opii 3ijs. M. ft. Lotio.

By the 7th the ulcer on the parotid gland had nearly healed, and the ulceration at the extremity of the nose was levelled and healing; but that on the right ala had still very thickened edges. Through the month of April the progress was slow, and in the beginning of May the lotion was made rather more stimulant by substituting half a dram of sulphate of zinc for that of copper. He applied the lotion by means of lint, which through the day he kept constantly wet to the part, and introduced a dossil up the ulcerated nostril. The liquor arsenicalis was added to the bitter mixture.

Through the months of June and July the same course was pursued, making a progressive but cautious increase of the sulphate of zinc and arsenic, and by the middle of the latter month the surface was nearly healed but the part was rather drawn up, and there was a small puckered ulcer on the bridge of the nose. By the end of the month it had healed and become smooth, but the skin was red and glossy, and the end of the nose was rounded off; but the patient was well satisfied, and thankful to recover from a painful and unsightly disease on such terms. He continued his lotion and medicines, and was advised to spend a month at Margate, which he did with great advantage and returned quite well. Within the next few months the sebaceous glands occasionally enlarged, when he applied

the zinc lotion. He has since had no return of the disease, his strength has become more settled, and the gastric organs have acted with greater regularity. As he improved in bodily health the energy and fertility of his mind became developed to a very unexpected degree.

Diseases of the thoracic viscera from derangements of the digestive organs.

Such is the intimacy of connexion between the thoracic and abdominal viscera that we cannot wonder the former should often participate in the disorders of the latter. The symptoms of pulmonary affection may arise from actual disease induced in the tissue of the lungs or in the pleura, in consequence of those parts sympathizing with a morbid process going on within the abdomen: or they may depend entirely on the catenation of parts concerned in respiration and common to the thorax and abdomen. The disorganizations which result from unhealthy action sympathetically excited, open a wide field in which I shall not pretend to labour.

The dyspnoea attendant on some inflammatory and other organic affections in the abdomen, is sometimes very remarkable, and may be the most prominent and almost only symptom. Some years ago I attended a case of extensive ulceration of the mucous coat of the colon, and for a considerable time there were scarcely any symptoms worthy of observation, except those which seemed to indicate a severe attack of peripneumony. In the progress of the disease, and by careful examination of the abdomen, the real seat of the mischief was ascertained. On examination after death there was reason to believe that the lungs had either not been at all affected, or only in a very slight degree.

In the following case asthenic inflammation of the mucous membrane of the bronchia, or congestion and irritability, accompanied at some periods with hæmoptysis, was induced by disease in the digestive organs.

CASE 1.

On the 4th of January, 1816, I was consulted by a lady fifty-five years of age, who some months previously had removed from the country into a rather confined situation in London, and had been the subject of considerable disquietude of mind. Even when not really ill she generally complained of being incommoded by the atmosphere of town. During the month or six weeks prior to my being consulted, this feeling of inconvenience had increased, and was attributed alternately to the smoke of the general atmosphere, and to the decomposition of gas which had recently been laid on and burnt in a large shop beneath the sitting rooms. At my interview with her she referred to a sensation of constriction across the chest, troublesome cough, and an obtuse pain on making a deep inspiration: and these affections were accompanied with extreme dejection. Twelve ounces of blood were withdrawn, and a saline draught and a grain of calomel were given every six hours.

On the following day, the 5th, the symptoms were much the same as on the preceding day. The blood exhibited the buffy surface, the coagulum was firm but not cupped, and it had a somewhat sity appearance, a circumstance, I think, which seldom or never occurs, except when there is hepatitis. But at that time, I was not sufficiently alive to this indication, nor to the necessity of careful examination of the abdomen in cases, *prima facie*, of thoracic affection. The tongue was thickly coated, and the bowels were constipated. She was directed to take a dram of sulphate of magnesia with two drams of infusion of digitalis and some tartarized antimony, every six hours. A blister was applied to the chest. During the succeeding night, the bowels were opened almost every hour, and in the morning, the pulse was 120, and very small. She complained of indescribable depression, which, perhaps, was partly occasioned by the digitalis, though she had only taken two doses, but principally by the disease, and by constitutional tendency. A

saline draught with a dram of infusion of digitalis, was now ordered to be taken every six hours. In the morning of the 7th, the respiration was somewhat better, and she expectorated mucus. Her langour, however, was very great, and in the evening was so excessive, that it was expedient to omit the digitalis.

At bedtime she took five grains of blue pill, with some cathartic extract, and the night was rather disturbed by their operation. She felt languid at the early part of the morning, but this had decreased at the time of my visit. I found her breathing better, her countenance was more vivacious and natural, her pulse was 110 and small, and the tongue was clean round the edges.

Some nitrous æther and camphorated mixture were added to the saline draught. On the 9th she reported, that the night had been again disturbed, in consequence of having to rise five times to the commode. The pulse was still 110; the respiration was more free, and the tongue not so thickly coated.

Hitherto she had made no complaint of the abdomen, but at this time from the bilious quality of the dejections, and their frequency, there was reason to suspect disease either in the liver or duodenum. Her cough was not very troublesome, and though a deep inspiration excited coughing, yet she was able to expand the chest fully. There was considerable accumulation of fat in the parietes, and the abdomen was protuberant and pendulous from this cause and from repeated pregnancies; yet, the integuments were unusually flaccid. There was, therefore, no difficulty in examining the contents of the cavity; and on this examination, the liver was found exceedingly tender, was somewhat enlarged, and was peculiarly moveable. This discovery, and the appearance of the blood, led me to believe, that the symptoms of subacute inflammation in the chest, had arisen from the state of the liver, and this opinion was corroborated by the circumstance that a general feeling of langour, with dejection and discontentedness, had long preceded the supervention of any serious indisposition. The hepatic affection must have been going

on very insidiously, for the patient's attention had never been directed to the disease in that organ.

Habeat pilulae hydrargyri grana quinque nocte manequa, et sexta quaque hora haustum salinum.

Her report on the 10th, was, that she had passed a good night, had only one dejection, that the skin had been moist all night, and that the mental depression had abated. She had no pain either in the chest or abdomen. The pulse was extremely small and feeble, which, perhaps, arose from the heart's partaking of the general muscular flaccidity.

All went on favorably, and on the 13th it was evident, that the hepatic tenderness was decreasing. She continued to respire freely, had but little cough, and the fur on the tongue was more circumscribed. The bowels were rather constipated, which was obviated by a rhubarb and magnesia draught: it operated twice, and she passed a very tranquil night.

On the following morning the pulse was 90, small and soft; the skin was cool, and she took arrow root and weak broth with relish. The same plan was pursued till the 18th, when the mercurial pill was reduced to three grains, but taken twice a day as before, and a light bitter with five grains of carbonate of ammonia was substituted for the saline draught. She likewise took a dose of rhubarb and magnesia every third day. In every respect the progress of recovery was steady, though slow. Sometimes she felt extreme depression, and occasionally there was a degree of sallowness of complexion. By the 29th of January she had so far recovered that all medicine was omitted, except that for a short time she took two grains of calomel every third night, and an aperient draught the following morning.

On the 26th of March I was again requested to see this lady. She informed me that she continued steadily improving after my attendance ceased, but that the bowels had been irregular, she had slight cough, her complexion was yellowish, and her tongue a little coated. She usually slept well, and took food with a moderate appetite. After walking out on

the day before my visit she felt some uneasiness at the upper part of the sternum. She slept well till five or six o'clock when she awoke suffering considerable pain beneath the breast bone, accompanied with oppressed respiration; and these symptoms continued at the time of my visit. There was much dejection. The pulse was 120, small and weak, the pain alluded to was constant, but was aggravated by a deep inspiration. This effort, however, did not excite coughing, nor did the patient perceive any titillation in the trachea or bronchia. The bowels had been twice opened since the preceding night, yet the abdomen felt tense and flatulent. She was directed to take alterative doses of calomel, and to keep the bowels gently open by means of neutral salts. Under this treatment the amendment was so decisive that within a few days she went into the country where her restoration was completed.

Twice since this indisposition I have attended the lady with haemoptysis, and on each occasion it was distinctly preceded and accompanied by derangement in the functions of the liver. The spitting of blood ceased in proportion as the liver regained its healthy action. On one occasion she was attacked in the country, and bleeding, digitalis, and purgatives were administered without affording any benefit; but by persevering in a mildly alterative mercurial plan, namely taking five grains of blue pill every other night, and some infusion of calomel with nitric acid twice a day, the cough, bloody expectoration, and dyspnoea ceased. In this lady the affection of the liver was of a very indolent character and did not express itself by the ordinary signs.

When there is a great tendency to pulmonary infarction, or to asthenic bronchitis—*to catching cold*—I have generally observed that there is something wrong in the functions of digestion; and nothing is more certain than that paroxysms of asthma may be induced by the same cause. In forming an opinion on this subject, however, we must never lose sight of the fact that diseases of the thoracic viscera very frequently occasion hepatic congestion, and other unhealthy states of the gastric organs—a fact dwelt upon in the former part of this

work. Whether genuine phthisis pulmonalis may be induced by disease of the digestive organs, admits, perhaps, of some doubt. This disease is often hereditary, for even at birth the lungs have been found tuberculated, and when the disease is developed in early life, especially if it have been a family disease, its hereditary origin cannot be questioned. But as we see other strumous diseases occurring in childhood and youth, without there having been any such disease in the line of ancestry, we cannot doubt that consumption may often be ascribed to causes quite distinct from hereditary taint, and derangements in the digestive organs may, I think, be classed among these sources. They frequently precede the development of phthisical symptoms, but whether they occasion the strumous diathesis, or, like disease in the mesentery, arise out of that temperament, in common with the pulmonary affection, although antecedently, may be questioned. Whilst it is probable that the abdominal affection sometimes gives rise to strumous disease, and often develops the latent disposition, it is equally true that when the strumous diathesis exists, whatever might have been its source, the functions of digestion are greatly disordered, and disorganizations in the forms of tubercle and ulceration and abscess often take place. Whatever relation the disorder of the abdominal functions may bear to phthisis, the comfort of the patient, and the prolongation of life, will in no small degree depend upon its treatment. Little or no hope, perhaps, can be entertained of curing tubercular phthisis, but it will not be doubted that the strumous diathesis on which the formation of tubercles usually depends, is frequently removed. Even when under these circumstances there has been reason to suspect that tubercles have formed, the careful and unirritating management of the digestive organs—the husbanding of the resources—and the regulation of the ingesta—will be important auxiliaries in the maintenance of power, and in retarding or suspending the progress of the malady.

Again, there are cases of simulated phthisis, often

consisting of disease in the mucous membrane. Some of these cases originate directly or indirectly in one or other of the modifications of abdominal disease; and those that have not this origin require the adoption of such measures as tend to restore healthy actions generally, by strengthening the digestive and assimilating powers.

I shall briefly advert to a few cases in illustration of these remarks.

CASE 2.

On the 16th of May, 1811, I was requested to see the daughter of an eminent artist, nineteen years of age. She informed me that five months before she was exposed to cold, and in consequence of which the catamenia were suppressed. That since then she had been afflicted with cough and fever, and that Dr. B——, at the west-end of town, considering her consumptive, and entertaining the opinion that marshy situations are salutary in such cases, had sent her to Plaistow, where I then resided. She was still taking medicine under the direction of the physician, who allowed her animal food three times a week, but no wine. She had been in the village a few weeks, and finding her getting worse her father was induced to apply for local advice.

Her countenance was pallid, the cough was troublesome, and the quantity of puriform expectoration very considerable. She could make a full inspiration without pain, and without its exciting cough. The pulse was 130, and the night perspirations were very profuse. She had little muscular strength, the tongue was white, and the bowels were rather constipated. Her general habits had been sedentary.

Viewing all the circumstances of the case I was led to regard it as an instance of chronic inflammation of the mucous membrane of the bronchia, in an asthenic habit, and kept up from deficient nutrition. I directed that she should take animal food moderately every day, and one

glass of Madeira wine. That she should relinquish the squills she was then taking, but continue the opening pills every other night, and twice a day take an ounce of a chalybeate mixture resembling the present form of the *mistura ferri composita*. No inconvenience of any kind resulted from the improved diet. On the other hand the patient felt more cheerful, the cough and expectoration were diminished, the perspiration lessened, and the pulse sunk by the 20th to 110.

She was directed to continue the same plan of diet and medicine, but during one week to substitute two grains of calomel every other night for the former pills.

At times within the next ten days the cough was rather troublesome, but the expectoration was much lessened. The appetite was generally good, the night perspirations ceased, the strength had increased, and she had no pain; but the pulse was quick and feeble. She took two or three glasses of wine daily, and continued the medicine.

On the 10th of June she returned to town, with a good appetite, cheerful countenance, diminished cough, and increased strength—still persevering in the same treatment.

The lady's father, writing to me on the 20th, said "my daughter is better, and has continued getting better since she came from Plaistow. She can walk and eat better, and begins to enjoy what she eats. She sleeps better, but coughs nearly the same." Still considering it a cough of irritation I enjoined perseverance in the plan, and removal into the country. This advice was adopted, and I had the pleasure some time afterwards to learn that the lady was quite well.

CASE 3.

On the 27th of April 1824, I was requested to visit Miss S. thirty years of age, she had been considerably exposed by superintending a stall at one of the bazaars, and it was supposed had taken cold. Symptoms of hepatitis ensued,

but suitable means, suggested by the medical man who was called in, were useful in subduing inflammation, and some months had elapsed when she became my patient. At that time she still complained of some pain in the right hypochondrium, accompanied with dyspncea, cough, hectic countenance, evening exacerbations of fever, and profuse night perspirations. The pulse was 120, she was rapidly sinking in flesh, and the dejections were clay-coloured. An easterly wind prevailed about this period, against which she was directed to shelter herself. Her diet was derived from milk, farinaceous articles and vegetables; and the plan of medicine consisted of alterative and unirritating doses of mercury, with taraxacum and light tonics.

During the first fortnight she appeared stationary, but afterwards the functions of the liver became somewhat more healthy. The progress of her recovery was very slow, but by the beginning of July she expressed herself conscious of considerable increase of strength, with very essential diminution of the cough and dyspncea. Her night perspirations had nearly ceased, the evening exacerbations of fever were scarcely observable, and she was gaining flesh. The pain of the side had wholly left her, and the dejections were natural. The medicine was now directed to be taken twice a day, which she complied with for a few weeks, and was then so well that it was entirely relinquished.

On the 27th of September I accidentally met this young lass walking in town, and she represented herself as quite well, but there were traits of a strumous temperament to which there had been no family disposition, nor any apparent tendency before her illness: she enjoyed moderately good health till near the end of 1825, when she complained of violent pain in the right shoulder, and after continuing a considerable time it terminated in an abscess which burst half way down the arm, and discharged copiously. She progressively grew worse, but had scarcely any cough, and died on the 1st of April 1826. Her friends thought that she died from exhaustion caused by this discharge. She had been under the care of a respectable young physician, but

having heard of her decease I requested permission to examine the body.

Examination—The body was extremely emaciated. A probe could be passed from two orifices below the insertion of the deltoid muscle to the shoulder.

On opening the abdomen the liver first presented itself, extending from the right hypochondrium nearly to the pubes. It was not indurated, but of a fawn colour; and being flattened perhaps the enlargement might not have been detected by an external examination. Morbid adhesion had taken place to the diaphragm. The stomach was small and nearly empty. The mesenteric glands were scrofulous and much enlarged. The lungs were universally tuberculated, but not in a state of suppuration. The left lung was firmly adherent to the costal pleura, and the right was collapsed.

The vessels of the heart were turgid and the proper coat of that viscus somewhat opaque. The abscess did not communicate with the chest.

This was an instance of strumous disease, but the precur-
sory symptoms were evidently connected with disease of the liver.

The abscess in the right shoulder I apprehend originated in the sympathetic irritation, so frequently excited in that part by hepatic disease; and afforded an example of sympathetic irritation ending in a real disease, a circumstance not uncommon. Here it produced the chronic phlegmonous or suppurative inflammation.

I have under my care a lady, past the meridian of life, who for many years had been affected with pain in the right hypochondrium. After a time the breathing became difficult, then she was placed in great peril by haemoptysis which continued for several weeks. Afterwards she had profuse purulent expectoration attended with hectic fever, and there was reason to believe that she could not long survive. The treatment principally consisted of keeping up the functions of the liver, sustaining the general powers by unirritating means, shielding from the atmosphere, protecting from mental excitement, and the avoidance of bodily exertions.

Under these means the cough and quantity of matter expectorated decreased, the fever subsided, the appetite improved, and for the last two years existence has been moderately comfortable. There yet remain clear indications that the liver and lungs are diseased. The patient does not leave the house. Her pulse is generally quick, and occasionally the cough and fever require a little attention, but she daily comes down stairs and enjoys domestic society.

In the following case, though the advantage derived from attention to the digestive organs was not permanent, some of the circumstances are instructive. They show how much evil results from neglecting the excretions, and how much ease and comfort may be secured by due attention to the abdominal functions even when the lesion of other viscera forbids the hope of restoration.

CASE 4.

Mrs. B——, thirty-three years of age, the mother of two children, the younger of whom was two years old, requested my advice on the 20th March 1816. She informed me that she was habitually costive, but had enjoyed tolerable health till within the last three months, during which she had been under the care of her medical attendant. He considered her affection as pneumonia, and therefore bled and blistered her, but whilst he directed attention to the increased action of the heart he had not duly estimated its power, nor maintained the action of the bowels. It was owing to the decease of her medical friend that I was consulted.

She had a troublesome cough accompanied with a sensation of something resting in the throat, somewhat resembling the *globus hystericus*, though not strictly of that character. The cough was most trying when she lay on the right side or back. Immediately on assuming either of these positions the cough became excessively troublesome, and the breathing difficult. She complained of tightness across the epigastric region and of anorexia. She expectorated a considerable

quantity of mucus. The pulse was 110; the tongue white and furred, and she had frequent pains about the back and shoulders. She generally had an accession of fever in the afternoon and profuse perspiration in the morning. There was considerable dyspnoea, but she could fully expand the chest although the effort produced irritation and cough. The bowels were extremely constipated, and though her medical attendant had not been particularly timid with his lancet, he was so fearful of opening the bowels that he only recommended lenitive electuary as an aperient, and always supplied her with an opiate to take a few hours afterwards lest the bowels should be excessively acted upon. The stools were clay-coloured, and, as might be expected, there was great flatulence, offensive taste, and uneasiness after taking food.

The first indication was clear, namely, to act freely on the bowels, and therefore three grains of calomel and ten of jalap were prescribed to be taken immediately, and to be followed by a dram of sulphate of magnesia every six hours. The next day she had four copious evacuations of a dark colour and exceedingly offensive. The relief from thoracic oppression was very remarkable, for she assured me that she had not respired so freely for three months. In the evening however, the oppression of breathing returned, the cough was very troublesome during the night, and the following morning she felt soreness across the chest—apparently the effect of the exertion of coughing. A deep inspiration did not produce coughing, and the general feelings were much more comfortable.

*Habent haustum salinum cum liquore antimonii
tartarizati et infuso digitalis ter die; et hora somni
repetatur pulvis catharticus.*

She passed the night tolerably well, and the following day menstruation commenced. The cathartic operated four or five times, and the dejections were more bilious than before. She was directed to continue the draughts and to repeat the

powder every third night. On the 25th the infusion of digitalis was augmented, and on the 27th the pulse was softer, the cough was less urgent, and the evening exacerbation of fever was less severe. She informed me that she always slept best on the night of taking the powder. The stools were still clay-coloured, especially on the day antecedent to taking the powder. The urine was plentiful but deposited a red sediment. The catamenia continue to flow, and some giddiness and erratic pains she ascribed to that discharge, having usually been associated with it.

All proceeded favourably till the evening of the 30th. The patient's mother, (a fat woman, who considered animal food in large quantities a panacea), had persuaded her daughter to eat some beef steak and drink currant wine for dinner. Soon afterwards the cough became exceedingly troublesome, the respiration was oppressed, the temperature of the skin high, and the pulse quick. She was directed to continue the saline draughts, to apply a blister to the chest, and to take two grains of calomel and the same of digitalis at bedtime. On the next day she was much better. She was directed to take a grain and half of digitalis every night and on alternate nights two grains of the hydrargyri submurias. On the 2nd of April she described herself as being well with the exception of cough and considerable weakness. She took a light tonic, and by the 9th she emphatically described herself as "a new creature," with reference to her general feelings, and the cough was abating. The action of the liver was kept up by occasional doses of hydrargyrus cum creta, and she remained comfortable through the summer. It was evident, however, that the lungs had sustained irreparable lesion. In the autumn the phthisical symptoms returned, the sputum became purulent, attended with hectic fever, and she gradually sunk. Life, however, was apparently prolonged, and certainly rendered more comfortable, by the attention directed to the state of the bowels, including in that attention such measures as promote other secretions.

It will probably be in the recollection of the reader that Morgagni has particularly alluded to numerous instances in

which the symptoms of pleurisy were produced by intestinal worms.

Spasmodic Croup.

Children are very liable to a spasmodic affection of the larynx which not very unfrequently terminates fatally, and when it does not end in death it is extremely distressing both to endure and to witness. Those who are the subjects of this irritability of the larynx, have the attack most frequently induced by laughing or crying, or it seizes them when awaking from sleep; but it does not arise from these causes alone. This disease is often regarded as a consequence of some affection of the brain, and as a frequent precursor of hydrocephalus; but the disposition to it usually originates in disorder of the digestive organs, and the brain and nervous system are secondarily affected. Although the irritability of the larynx be sympathetic, yet local disease is not unfrequently discoverable. That form of the disease which consists of an attack of suspended breathing, in sudden and short paroxysms, I think is peculiar to children, and more especially those who are delicate: but a more continued form of spasmodic croup occasionally invades adults. It is of great moment to distinguish these cases from the inflammatory, though it is sometimes exceedingly difficult. Nervous and susceptible persons, and particularly hysterical women, are most liable to the spasmodic affection. As far as my observations have extended I am led to say that there are remissions in the paroxysms, which in suddenness and degree have no parallel when the symptoms arise from inflammation.

CASE 1.

A married lady, about twenty-eight years of age, sent for me early in the morning of the 2nd of June, 1821. I found that she had been a little indisposed from cold during

two days, and that symptoms of croup came on the preceding night. The dyspnoea, at times, was extremely urgent, and the larynx was so irritable that on speaking or attempting to inhale she was threatened with instant suffocation. Her cough had the peculiar sound which characterizes croup, and her pulse was quick and hard. As I sat at the bedside the urgency of respiration occasionally became so great that tears flowed from the eyes, and she laboured with the utmost agony to draw in air as well as to expel it. Although I knew that my patient was a very susceptible woman, and found that the bowels were confined, yet the analogy to the genuine croup was such that I urged the necessity of immediate bleeding. This, however, the friends objected to, because they conceived that on some former occasion, when resident in the country, she had been bled to excess. Considering my patient in jeopardy these objections a little disconcerted me, but I consented to wait an hour. Within this time some castor oil, which the patient had taken before my arrival, began to operate, and immediately afterwards the patient's situation assumed a more tranquil aspect. She became able, with caution, to use the inhaler, which afforded additional relief, and under these circumstances bleeding could not be urged. She was directed to take a grain of calomel immediately, and a saline draught every four hours. In the evening I found her much better, and the following morning she was quite well.

This was evidently a spasmodic attack, originating from constipation, in a nervous and hysterical habit. She has had a few attacks since, but not so violent; and they were always relieved by the inhaler and aperients.

CASE 2.

The infant of Capt. —————, nine months old, became the subject of frequent paroxysms of suspended breathing from the slightest causes, as laughing, but more especially

crying. During the time of this susceptibility the child was observed to suffer much from flatulence. The parents, who lived a few miles from town, had been informed that I was ill and unable to leave home, and therefore they had sought no medical advice; but the mother had given some powders for which she had sent to a neighbouring apothecary, and she had applied leeches to the back of the neck, and a blister. In the act of administering one of the powders, which the little patient resisted, spasm came on and terminated fatally. Three days afterwards, March 18, 1824, I was informed of this event, and obtained leave to examine the body.

The child was remarkably fat, and so beautiful that it presented the appearance of sculpture. On opening the abdomen I found that the vessels of the intestines were rather more distended than usual, and there were a few ounces of serous fluid in the cavity. The mesenteric glands were considerably enlarged, but not indurated. Some of them were aggregated and formed masses an inch in length. The liver appeared to be in a state of congestion,—its surface and substance presenting a purplish hue; and was rather large even when the increased proportion allowed for infancy was considered.

Tracing the intestine I found one intussusception in the jejunum and another in the ileum, but the involved portion was easily drawn out. The lungs were perfectly healthy, but the pericardium contained about an ounce of serous fluid.

I now removed the larynx and found the membrane covering the arytenoid cartilages, investing the epiglottis, and descending just within the rima glottidis, evidently inflamed and slightly abraded. The appearance of inflammation did not extend into the trachea.

The parents rather wished that the head should not be disturbed, and though aware that these spasmodic affections are often attributed to cerebral irritation, I did not think the examination necessary. There had been no symptoms of disease of the head; and had there existed any turgescence of vessels, or slight deposition, I think it might

fairly have been imputed to the deranged state of the digestive organs.

CASE 2.

The particulars of this case have been already published.* The child was eleven months old, and after having repeatedly undergone these spasmodic affections he died suddenly in a paroxysm. During the preceding fortnight he had been free from the attacks, and appeared quite well till in the act of struggling to get from the mother's lap, and beginning to cry, the fatal event occurred. In this case the mesenteric glands were exceedingly enlarged. The vessels of the pia mater were turgid, especially in that process of it which lines the ventricles. The tunica arachnoides was elevated by a subjacent fluid, and the substance of the brain was very soft. There was also, as in the former case, slight ulceration of the membrane lining the under surface of the epiglottis.

One of my own children was severely affected with the disease. During twelve months, whenever his bowels were in an unnatural state, the irritability of the larynx was so excessive that either laughter or crying produced a spasmodic constriction of that organ threatening suffocation. Each attack left him in a most feeble state for some hours.

The affection in the larynx in the two fatal cases just adverted to, affords an example of disease sympathetically excited producing lesion of the part. In urgent cases of this kind, though attention must primarily be directed to the state of the chylopoietic viscera, and in some instances to the brain, the local affection, though viewed as sympathetic, must not be overlooked. The application of a leech or two on each side of the larynx, and a small blister placed at no great distance, but not immediately over the part, will occasionally be found auxiliary in the treatment. Though inflammation must necessarily have preceded the abrasion of the membrane, it was not of the acute character, and the subjects of the disease are generally so delicate that much depletion, or

* Morgagni vol. i. 247.

active purging, is not well borne. An occasional unirritating dose of mercury, a little rhubarb and magnesia as an aperient, pure air, and nutritive but unexciting diet, are perhaps the safest and best means of treating the disease.

Affections of the heart.

No viscus more strikingly exemplifies sympathetic disorder than the heart. Its morbid action may be derived from causes seated in the brain, or in the uterus, but most frequently it originates in derangements of the digestive organs. This is unquestionably the fertile source of that state of the nervous system on which irregularity of function depends.

The most familiar state of unhealthy action is that of palpitation, to which young persons more especially are liable. Persons who are nervous, whose sensibility is morbid, are more particularly the subjects of this affection. It does not always originate from the digestive organs, but sometimes when it cannot be traced to this cause, the success resulting from such measures as strengthen the nervous system by their more direct agency on the powers of supply, lead us to suppose that the disturbed action of the heart was perpetuated by some defect in the functions of those viscera.

CASE 1.

On the 14th of March 1809, I was consulted by Miss M—, twenty-one years of age. For a long time she had been distressed with violent pain beneath the sternum, and when I saw her it extended through the left hypochondriac region and was frequently accompanied with most vehement palpitation. This excessive action of the heart, often arose without any apparently exciting cause, but sudden surprise, or any other unexpected occurrence uniformly produced it. With these symptoms she had considerable restlessness, troublesome cough, laborious respiration, a frequent and intermitting pulse. The dyspnoea was of course most urgent

during the paroxysms of palpitation. The bowels were constipated, there was no inclination for food, and the symptoms were aggravated after taking it. She was restless at night, and had frequent alternations of heat and cold. She had tried a variety of nervous and febrifuge medicines, without deriving any benefit. A grain of calomel with ten of jalap every other night, and a light bitter with nitric acid conjoined with attention to diet, speedily adjusted all the irregularity.

Where there exists no increase of force, or irregularity of action, there are deviations from the healthy state equally dependant on the chylopoietic viscera. It is of the highest importance, likewise, in forming an opinion as to the nature of various diseases, to bear in memory the agency exerted by the digestive organs, (through the medium of the nervous systems) on the functions of the heart, and to remember that irritative action may resemble power, and yet require very different treatment. Sometimes the action, from the cause alluded to, is slow and feeble, inducing the practitioner to the administration of cordials and stimulants:—not unfrequently it is irregular or intermittent, so that an apprehension of organic mischief may be awakened.

CASE 2.

A gentleman, when considering himself well, was suddenly seized with a consciousness of pause in the beat of the heart. He was in the prime of life, and was somewhat appalled at the circumstance. He perceived a distinct intermission of about two beats after every ten or twelve. I saw him in this state, and knowing that there had been a slight deficiency in the biliary secretion, a few grains of calomel were given him. In the course of an hour the attack went off, but it occasionally recurred on exertion. The medicine acted copiously on the bowels, and on the following day he was wholly free from the affection. For a year or two, however, whenever the bowels became confined, or when the excretions were

unhealthy, which at that period they frequently were, this gentleman was often seized with transient fainting. In an instant he became bedewed with cold perspiration, and on examining the pulse the intermission was invariably detected. Occasionally the intermission was so long that life was endangered. Sometimes this was the first intimation of derangement in the hepatic functions. A few alterative doses of mercury always, for a time, removed the affection.

The period when these attacks most frequently occurred was during seasons of leisure when the gentleman was applying closely to a literary undertaking. He has wholly lost the attacks now for four or five years, having been called into more regular employment; and he was benefited by exercise on horseback.

So much functional derangement sometimes arises from deranged bowels, that if it occur in a person advanced in years, when organic lesions usually take place, we are in danger of being misled. Not long ago I was in attendance on a lady upwards of sixty, who had been but feeble for a year or two, though able to walk abroad. She was seized with diarrhoea attended with considerable pain. Extreme prostration of strength resulted from this attack, and when I first saw her the pulse was exceedingly intermittent, and the beat very feeble. Her situation was full of danger, and connecting the state of the pulse with the previous feebleness, the occasional attacks of deliquium and the age of the patient, I intimated to her friends that she probably had disease of the heart, but a decisive opinion could not be formed till the intestinal irritation had ceased. Suitable measures were directed to remedy the bowel disorder, quietude and the horizontal position enjoined, and light but nutritive diet recommended. In the course of a few days the diarrhoea subsided, and in about a week had nearly ceased. The pulse then became more regular, and as the patient's strength increased the heart acted with perfect regularity. The balance between the nervous and vascular systems necessary for the maintenance of healthy functions seems in this case to have been easily subverted, and this is not uncommon.

Angina pectoris.

The distressing and often fatal disease, *angina pectoris*, is, perhaps, generally connected with ossification of the coronary arteries, and a degeneracy of the muscular structure of the heart. I have met with numerous instances of ossification in the coronary arteries which had never been attended with symptoms of *angina*: and cases of the latter have fallen under my notice where there was no ossification of the nutrient arteries, but there existed opaque depositions and other traces of disease at the root of the aorta and origins of the coronaries, and likewise that flaccidity of the muscular structure which is usually found after this disease. Therefore, it is not essential that ossification should have taken place, although ossific depositions are commonly found either in the course of the vessels or at their origins. If, however, the mouths of the vessels are contracted by any other morbid process the effect is as likely to be produced as if ossification had taken place. Attacks of *angina pectoris* also occur from functional derangement, and most frequently they are occasioned by *dyspepsia*. In one instance the attack seemed to depend upon a highly nervous and susceptible habit. The patient was a lady, much below the age at which the seizures usually occur. She was not above twenty-six, but the symptoms were clearly characterized, and their recurrence was prevented by such means as tended to improve the general health.

I have already published a strongly marked case, in which the disease originated in an affection of the digestive organs.* No organic disease appeared to have taken place though the paroxysm was exceedingly severe, and the gentleman I believe has had no attack since.

In the following case the seizure proved fatal, but from the history we may infer that the state of the digestive organs had great influence in producing the organic disease in the aorta and heart.

* *Morgagni* vol. i. page 505.

CASE 3.

Mr. S. sixty-five years of age, an Essex maltster, had been accustomed to live very temperately, and generally enjoyed good health, with the exception that for many years he was exceedingly troubled with flatulence, and his bowels were constipated. About three weeks before his death he was seized in his maltkiln with considerable pain across the chest and in his arm, and for a time was quite unable to move from an apprehension that death would immediately result. After the lapse of a short time he felt somewhat better, walked into the house, mentioned the terrific attack he had undergone, and stated that he never expected to see his family again. After drinking a little brandy and water, he felt tolerably comfortable, and did not consult his medical friend.

About three weeks had elapsed when, according to custom, he left home at two o'clock in the morning and travelled outside the coach to attend the London corn market. Though well clothed he found the night unusually cold. He reached Mark-lane, but whilst at market he was seized with pain in the epigastric region, extending somewhat beneath the sternum. He tried some spirit and water, but this gave him no relief, and therefore he returned to his inn with the intention of dining, preparatory to setting off home. The pain, however, became worse so that he could neither take nourishment nor undertake his journey, he therefore went to a relation's in Whitechapel. Here he complained of what he termed violent rheumatism of his left arm, particularly about the wrist, and which he said was connected with an agonizing pain across the thorax and epigastric region. The affection of the arm was so severe that as soon as he entered his friend's house he placed himself by the fire, and began to warm the part, and to employ friction.

I was called in about five o'clock, when the preceding details were given me. He described the anguish as still very keen not only in the body but in the arm; yet he

appeared to respire without much difficulty. He had excessive flatulence, and experienced slight relief from frequent eructation. His pulse was 90 and not hard, and his tongue was clean.

I prescribed for him some calomel and opium in conjunction with opening medicine, and at half-past nine o'clock was informed that he was more easy. His friend remained in the room with him till one o'clock, and then left him still better. At four the servant went into his chamber, when he reported greater amendment; and at six his niece visited him, when he felt so well as to talk of going into the country by the morning coach, but on being told that it snowed he consented to defer his departure till I had seen him. At eight o'clock he gave instruction as to his breakfast, sat up in bed, conversed cheerfully and energetically with his nephew, spoke of his relief with gratitude to the Almighty, when suddenly he complained of faintness, fell back on the bed, and instantly expired.

In the evening of the following day I examined the body.

The deceased was a tall well-formed man, and though not corpulent there was a considerable deposition of fatty substance.

The stomach and intestines were greatly inflated. The liver was slightly larger than usual but natural in its structure. There were two long fissures on the convex surface which resembled cicatrices. The spleen was three or four times its usual bulk. On opening the stomach I found the mucous coat of a very deep red colour, more like venous plethora than inflammation. There was also a degree of thickening of this membrane which led me to infer that congestion was a disease of old standing, and that it had been the cause of the flatulence.

The lungs were perfectly healthy, but there were about four or five ounces of bloody serum in each cavity, and the posterior part of the lungs, as well as the costal pleura, was of a deep crimson colour. The pericardium contained barely an ounce of bloody serum. The heart was remarkably flaccid, and its fibres easily lacerable. With the

exception of there being a small quantity of coagulated blood in the right auricle the heart was empty. The lining of the cavities was of an unusually deep red appearance, and the mitral valves, as well as the semilunar valves at the orifice of the aorta, were studded with opaque spots; but in no part had ossification taken place. Arteritis had existed to some extent up the aorta, and the posterior surface of the valves was more diseased than other parts. The lining of the pulmonary artery was opaque. There was no appearance of disease in the coronary arteries, except their orifices being involved in the morbid process going on in the aorta, but which did not contract them.

I have already mentioned that ossification of the nutrient arteries may exist without there being degeneracy of muscular structure, and without any attack of angina. Here we find the degeneracy of structure, and angina, without ossification. I have seen other cases of the same kind, and believe that they are not very rare.

Nothing is more difficult frequently than the associating of causes and effects, yet, as the derangement of the stomach had been long antecedent to indications of disease in the heart, it is not unreasonable to infer that the former had been influential in the production of the latter. The age of this patient certainly was that at which angina pectoris usually occurs, and from the appearance of the heart itself, and of the aorta, disease in them must have been proceeding though insidiously for a considerable time.

Dyspeptic angina, and those functional attacks which originate in other causes, and to which even young persons are liable, requires treatment which in some respects would not be applicable to men advanced in years, and in whom organic lesions have taken place.

Affections of the lymphatics.

Not only do derangements of the digestive organs disturb the nervous and vascular systems, but they greatly influence

the absorbent system also. Anasarca is frequently produced by this cause; and admits of removal by the simple form of alterative mercurials conjoined with bitters. It is well known that hepatic disease is a very frequent source of ascites, which is generally attributable to a state of plethora or of inflammation. But effusions into other cavities besides the abdomen are often connected with the liver disease. The doctrine of the inflammatory origin of morbid accumulations of serous fluid has been carried so far, that even when the membrane from which the fluid is secreted presents no appearance of heightened vascularity, inflammation has by some been regarded as the cause. It is true that we are not always to regard redness as a necessary feature of inflamed membranes: there may be opacity. But when we find that even in healthy states of body some secretions are influenced by mental emotions, or by nervous irritation, may we not reasonably infer that other secretions, less exposed to our observations, admit of the same influence? When this inference is strengthened by the absence of morbid appearance in the membrane surrounding a cavity which contains a preternatural quantity of fluid, we are surely warranted to attribute the redundancy either to increased secretion from irritation, or to defective power in the absorbents. The latter is the subject more particularly under consideration here, and whilst it is admitted that inflammation and congestion are the more frequent precursors of serous effusion, we must not always impute increased accumulations of fluid to these causes. I have seen cases of hydrocephalus in which neither the symptoms, nor the appearances after death denoted inflammation.

The following instance of infantile anasarca, connected with overloaded or deranged stomach, is not altogether uninteresting.

The mother, not being able to suckle the infant, attempted to procure a wet nurse, but her inquiries were unsuccessful, and it was fed by the hand. For three months the infant continued tolerably well, but it then became pale, delicate, and flatulent; and seemed to be generally declining. The

mother now engaged a poor neighbour to suckle it three times a day, and during the first fortnight this alteration in its mode of subsistence seemed very beneficial. Then it began to fall off, and a week afterwards, April 2nd 1817, I was consulted. The child was then anasarca. The limbs and face were greatly swollen, the skin was semitransparent, the bowels were constipated, and the dejections green: there was frequent retching, and the matter vomited was very sour. All the symptoms appeared to arise from a deranged state of the digestive powers, for the plan of feeding, in the intervals of the suckling, had not been judicious. I prescribed for it half a grain of calomel with a very small dose of the compound powder of scammony and an alkaline mixture consisting chiefly of magnesia and chalk. By the fourth the little patient was more tranquil and the swelling somewhat assuaged. The dejections were still green, consistent and cohesive, and the urinary excretion was so little as to be scarcely perceptible on the napkin. As there was considerable difficulty in getting down the powder, an alkaline aperient mixture, with a few drops of tincture of digitalis was prescribed.

During the 5th and 6th the infant voided a large quantity of water. The bowels were opened more freely, the swelling subsided, and the skin became less diaphanous.

On the 9th the mother was directed to give the mixture only twice a day, and by the 12th the swelling had disappeared. The urine was plentiful in quantity, the stools green, and the child very cross.

R Pulv. Rhæi gr. iiij,
 Sacch. alb. 3ss,
 Aquæ 3j,
 Spir. ammon. arom. gutt. xiv.
 M. cujus danda cochlearia parv. ii.
 ter die.

The infant soon became well, and continued to enjoy good health.

Questions often arise respecting that asthenic state of

constitution indicative of a tendency to scrofula, namely, pallid complexion, thickened upper lip, swollen glands, and tumid belly. This condition I believe very often originates either from disease in the digestive organs, or is owing to irritation resulting from improper nutriment. It is, however, probable that in most cases the organs in question become affected, in common with the glandular and other parts of the system, from causes which act simultaneously on the whole constitution. Whatever may be the relation of the gastric derangement to that of the constitution, mercury and stimulating purgatives, (if required at all), should be administered with the utmost caution, in small and unirritating doses. The food should be nutritive and derived from such articles as are easily assimilated, and at such intervals as neither interfere with digestion, nor expose the patient, especially if young, as usually happens, to that extreme languor which results from long fasting. It is a prevailing opinion, and I think a very just one, that these cases are benefited by country air in the summer, and especially at the coast. It cannot be questioned that attention to diet and exercise, combined with tonics, will often effect great improvement where removal from town is impracticable—this, however, should be regarded as meeting an exigency, but not as giving preference to the plan. The advantages derivable from a change of this nature have been so general and so manifest in the cases which have occurred to me, that I am almost tempted to impute blindness, from a love of singularity, to those who discourage it, or who attach no importance to it. Had I not been an eyewitness I should scarcely have credited a report of the pertinacity with which prevailing and forcible evidence may be opposed.

The same observation applies to diet. Regardless of the extreme languor and weakness of the patient, of the morbid sensibility, of the longing for food, and of the dislike of the diet prescribed, it has been limited to a single article, divided into three small portions for the whole day. The distress of children under such treatment is excessive; and to say nothing of deficiency of supply, the state of the mind has a

most injurious effect on the disease. The diet should be suitable in its quantity, nature, and periods of supply, to the nature of the case, and to the age of the patient: and in childhood, where reason has not an ascendancy, the *inclination* must be a little considered. This attention to diet, aided by pure air, and appropriate medicine, will often effect great alteration in constitutional affections.

In glandular swellings when a change into the country does not cause their dispersion, the amended health often brings those that had been extremely indolent to a speedy crisis by suppuration.

Young people who are the subjects of the strumous diathesis require the most careful management, as to mind as well as body. Their application to mental pursuits should not be severe or long continued. They should be warmly clothed in the winter, and then, except when the degree of indisposition prohibits it, they may safely be allowed to take exercise in the open air, and their engaging in active amusements will be beneficial.

Though this discussion may appear scarcely relevant I believe that it does bear directly on the subject before us, for the medical treatment as well as the dietetics, and also the prophylactic measures, must necessarily have a constant reference to the state of the digestive organs.

Defective assimilation is not unfrequently a precursor of scrofulous caries in the bones. This is exemplified in many instances of diseased spine both in children and adults. I have very recently been consulted relative to a little patient, only two and half years old, under these circumstances. The child had for some time been the subject of impaired appetite, pale stools, fretfulness, and indisposition to move, and there was reason to believe that these symptoms originated in dentition. She had been ill for six months before I saw her, and during the three latter months she had held her head in a marked position, and seemed to have much pain in the back. During this period the measures employed had not been very judicious. Purgatives of an active and irritating nature had frequently been prescribed

by which the feeble resources of the little sufferer had been increasingly expended. A fortnight before the parent brought the child to me a protrusion in the spine was noticed, and on examination I found very considerable projection of the spinous process of the first dorsal vertebra. A mild dose of the *hydrargyrus cum creta* and tonics effected some improvement in the general health, but after the lapse of three or four weeks I had no opportunity of knowing the farther progress as the mother lived at a distance, and it was not very desirable that the patient should be brought from home.

It is really surprising and interesting how much may be effected by cautious and persevering management, especially of the assimilating organs, in some of the most distressing forms of strumous disease. I have a young lass under my care, (though, indeed, now so nearly well as scarcely to need attention), in whom the parts affected, as well as the nature of the disease, were very formidable. Derangement in the organs of supply was followed by enlarged lymphatic glands. Then one of the fingers thickened to three times its proper size, abscesses formed in it so that at one time a probe might be passed through it close to the bone, and in the progress of recovery two or three small fragments of bone exfoliated. Abscesses formed on the back of the hand, where also the bones were enlarged. The glands about the neck swelled so as to give the face a morbid and unsightly rotundity. The upper lip thickened. The nose became obstructed, apparently by an enlargement of the spongy bones, and the *ala nasi* were thickened. The elbow joint enlarged, and was rendered cribiform by abscesses; and here, too, some exfoliation of bone occurred. There were frequent attacks of hectic fever, and occasional cough, which led us to apprehend the development of phthisis. The means employed were attention to the digestive organs, keeping up secretion by unirritating means, giving tonics in the absence of fever, and salines during the accessions; sending her to the sea side for a few months in the summer, and keeping her well clothed in the winter; regulating the diet at all times so

that she should have an adequate supply of nutritive food on terms as easy as possible. With these attentions to the body the efforts of the mind were not overlooked; great care being taken that the application should not be too intense, and that seasons for exercise and relaxation should be sufficiently allowed. By persevering in this system the elbow has become quite well, no thickening remains, but there are some fossæ, at present, owing to the abscesses. The glands of the neck have quite subsided, the nose is well: indeed, the young lass appears in perfect health with the exception that there remains some thickening in the finger. The solution of sulphate of zinc was of great service as a local application to the wounds of the finger and elbow.

A rather uncommon effect of swelling in the glands at the angle of the jaw I have lately witnessed. A little girl, about three years old, became the subject of glandular enlargement, and at the angle of the jaw the swelling was very considerable. Her respiration was difficult, and on examining the fauces the tonsils appeared almost to close the back of the mouth. It was truly distressing to hear the child breathe when asleep, and the parents at times were roused by the apparent danger of immediate suffocation. Matter formed in two of the glands, but on its being let out no relief was afforded, though there was good reason to believe that the tonsils were thrust forward by the enlarged lymphatics. After this the child went into the country, where the process of suppuration in the other glands advanced with greater rapidity, and at length a large quantity of pus was discharged by puncture, and the relief of breathing was instantaneous.

In some instances of rachitic disposition circumstances occur which lead to a suspicion of there being diseased spine. Parents are very anxious about the appearance of curvature lest it should issue in permanent deformity. The state to which I refer does not consist of any lateral distortion, nor is there any projection of a few of the vertebræ as in caries, but the whole spinal column bows outwardly. It is a state by no means uncommon, and, perhaps, there

are not many practitioners who would consider the case as one of spinal disease. However, parents are often made needlessly anxious on the subject, and therefore I shall relate a case which both in origin and symptoms may be regarded as characteristic of a numerous order.

Early in the year 1817 I was consulted respecting a little boy somewhat more than two years of age. He could scarcely walk. His back was remarkably bent by a great convexity outwards, but there was no lateral distortion. His limbs were curved at the ankles. His belly was large, the stools were pale, and the bowels irregular.

The necessity of not urging the child to walk, or to bear much on his limbs, was duly enforced on the parents, and also the expediency of his respiration a wholesome atmosphere —of being well clothed, and of being fed with nutritive articles of diet in a plentiful but not redundant quantity. It had been suggested to the parents to apply instruments for the purpose of counteracting the distortion of the limbs, but I decidedly forbade them on the principle that in a state of constitution so defective as to strength much harm must necessarily result from the additional weight the child may have to carry, and also because I did not doubt that nature would herself rectify the distortion, provided the general health should be established.

His mother was directed to give him bread and milk for breakfast and supper, and meat at dinner, giving a preference to lamb or veal, and such articles as whilst being nutritive are the least stimulating. Careful abstinence from such medicines as irritate the mucous membrane of the alimentary canal was enjoined, not only as they might interfere with the digestive process, but also excite the mesenteric glands, especially if morbid action should already have begun in them. The only medicines prescribed for him were a pill containing a grain and half of the pilula hydrargyri to be taken every other night, with an occasional intermission of a week; and some rhubarb and magnesia to be taken should an aperient become necessary.

He was placed with a careful nurse in the country, where all our plans were carried into full effect

For some months he was particularly liable to pulmonary inflammation, which generally was soon relieved. Whenever these attacks occurred he was thrown back a little, but by recurring to the general plan of treatment, and persevering in it, his health improved, and he became less susceptible of inflammatory affections. During the summer he was frequently dipped. By the end of the year his back was much less curved, his joints were more rigid, he could walk about firmly, and when I saw him a year afterwards he was a fine and interesting boy. Had this child been much purged, or had the constitution been irritated in any other way, it cannot be doubted that he would have become rachitic. The parents always observed that the hepatic secretion was promoted by the pills, and that the general health and temper were uniformly much improved by them. The teeth had been cut early, so that the suspended hepatic secretion did not appear attributable to dentition, though so frequent a cause among children.

Fever.

The influence of disordered states of the digestive organs in the production of continued, remittent, and irritative fevers, is well known, but I do not recollect to have met with an instance on record of intermittent fever which distinctly arose from that cause. One case, however, occurred in my practice.—A lady in the seventh month of pregnancy had been affected for some time with what was considered as quotidian ague. Every day, at nearly the same hour, she was attacked with rigor and violent shivering which continued for half or three quarters of an hour, and was succeeded by the hot and sweating stages. On being consulted I found that the bowels were much confined, and therefore deemed it expedient to administer some opening medicine before any other steps were taken. The bowels having been

somewhat freely acted upon in the course of the next twenty-four hours, the febrile attack did not recur.*

Diseases of the skin.

The close connexion which subsists between the skin and digestive organs scarcely need be mentioned, and, indeed, it is so extended a subject that we can only allude to it. It is common even in domestic practice to regard the chronic affections of this membrane, in nearly all their diversities and modifications, as occasioned by some derangement in the bowels, and perhaps we are chargeable ourselves with being too indiscriminate on this point. That many forms of chronic eruption are occasioned by some derangement in the hepatic functions, or in some other organ concerned in digestion, cannot be disproved, and in such cases alterative doses of mercury, and sometimes active purgatives, are beneficial. But it not unfrequently happens, even when there exists constipation, and unhealthy secretions, that the remedy must be sought in the tonic class of medicines. These diseases need the same reference to constitutional peculiarities as is required by all other diseases, and to treat them successfully we must guard against the routine habit of invariably prescribing mercury. Sometimes they seem to depend on the redundant formation of acid, and though this may be merely an effect of impaired digestive powers, yet alkali is particularly useful. Sometimes there appears to be deficient energy, when arsenic, or the mineral acids, or quinine are requisite: and sometimes even when the disease

* A gentleman informed me that he was recently consulted respecting a family with ague. Bark had been given freely without success. Finding that their bowels were much disordered, he prescribed some opening medicine for them, intending afterwards to give quinine, but as soon as the intestinal irritation was removed the ague ceased. This I believe is not a very uncommon circumstance, where bark has been administered; but in the case recited above no medicine except purgatives was given.

has a constitutional origin it acquires the power of independent existence, so that local applications are indispensable.

Some practitioners feel objections to healing ulcerations behind the ears, and on other parts of children during dentition, from an idea that the ulceration is salutary. I never hesitate to heal them as soon as possible, (attending at the same time to the state of the stomach and bowels,) and I never saw an instance in which any bad consequences ensued. The ointment which I find most effectual in these cases, and indeed in many other forms of superficial ulceration, is the following.—

R Hydrarg. Nitrico-Oxyd. 3ij,
Plumbi Acet. 3jss,
Hydr. Sulph. rub gr. xvj,
Ung. Cetacei lb. j,
Ess. Burgamot 3j. M.

The two following cases of superficial ulceration will suffice to elucidate the influence of the digestive organs in the production of cutaneous disease.

A poor woman, advanced in life, applied to me on the 25th of March, 1808, on account of extensive ulceration on the right side of the abdomen. It was situated on a line from the anterior and superior spine of the ilium, and extended to the corresponding part of the linea alba, and was about two inches in width. The edges were exceedingly thickened, and the depth irregular. There was not much discharge, and that which did escape was sanguous. For twelve months it had been in this state, and during the whole time was very painful and resisted numerous remedies and applications which had been employed. She complained of flatulence, and the functions of the liver were not healthy.

She was desired to dress the wound with the ung. cetacei, and to take the following pills.—

R Hydr. Submuri. gr. vj,
Succ. Cicutæ Spiss. 3j. M. et divide
in pilulas xij, quarum sumat unam quaque nocte.

On the 1st of April she reported that the ulcer had been more free from pain, and it had a granulating appearance. It continued progressively to fill up, and by the 30th had completely healed.

The following case also shows how much may be effected in the treatment of irritable ulcers by simple means steadily employed.

In the autumn of 1823 I was consulted by an elderly lady who for many months had been rendered exceedingly uncomfortable by a small superficial ulcer on the leg near the malleolus. She had injured the part many years before, and though it had healed the spot remained discoloured and was occasionally in pain, but did not begin to ulcerate till about the time mentioned. The ulcer was about the extent of a shilling, its surface was dry, and it was surrounded by a broad circle of inflammation, and there was some swelling round the ankle. Various ointments had been unavailingly resorted to, and the pain from strips of plaster on Baynton's system was quite intolerable. Occasional doses of purgative medicine had been taken under the direction of the medical man.

On inquiry I learnt that some pain had been experienced in the liver, the appetite was capricious, there was fulness at the stomach after eating, the rest at night was interrupted both by the excruciating pain of the limb, and from horrid dreams. The bowels were irregular, and the excretions of a very dark colour. The following lotion was constantly applied by means of wetted linen and a roller.—

R Zinci Sulphatis gr. x,
 Plumbi acetatis 9ij,
 Tinct. Opii 3ij,
 Aquæ Rosæ 3vij. M. ft. lotio.

R Pil. Hydrarg.
 Succ. Cicutæ spiss. aa gr. iv. ft.
 pil ij, hora somni omni nocte sumendæ.

The lady lived in the country, but for about ten days I had an opportunity of witnessing the effect of this plan, and nothing could be more decisive. The pain had nearly ceased, the ulcer was lessening, and the circumjacent inflammation had nearly gone off. She was requested to continue the same plan, and being an active woman was cautioned against much exercise. The part soon became quite well.

I have thus glanced at some of the more prominent effects produced in the system, and which have fallen under my own observation, as the results of derangement in the chylopoietic functions. Had I attempted to enumerate them all, and to have pursued them through all their bearings, I should have been constrained to trace out nearly a complete system of pathology. I have limited myself as much as possible to sympathetic derangement of function, but disordered action, it must be remembered is the precursor of disorganization, and they are so connected that it is impossible to describe the one without being brought into contact with the other. Had we pursued congestion and inflammation, both of which often result from gastric derangements, we must have described dropsical effusions, effusions of lymph, and other depositions, morbid adhesions, unnatural consolidations, thickening of membranes, ulcerations, abscesses, as well as the various forms of unhealthy secretion.

It is well known that there is no part of the body so remote or so insulated as to be beyond the sphere of dyspeptic influence. It has been shown that a small muscle of the face may become the seat of spasmotic actions whilst all the surrounding muscles were totally free from morbid affection. The extremity of a single nervous filament may become the seat of the most painful sensations, whilst others given off by the same nerve in its course from the brain or spinal marrow remain entirely exempt. I am acquainted with a gentleman who enjoys good health with the exception of occasional constipation. Whenever this occurs, or when the excretions are so unnatural as to irritate the anus, at the moment of expulsion, and whilst the rectum and anus remain irritated, he uniformly experiences a most severe twinge in

that branch of the palmar nerves which is distributed to the radial side of the little finger, the pain sometimes extending to the ulnar side of the ring finger. Within the last three or four years these attacks have been very numerous, and though the pain is not acute except under the circumstances alluded to, yet the part remains uneasy for a day or two afterwards, and sometimes much longer. This appears to constitute a very mild case of tic doloreux. It has apparently been kept moderate, indeed, the tendency to it lessened by the occasional use of mild mercurial remedies, and by other gentle measures employed to regulate the excretions.

Orfila, I recollect, mentions a curious circumstance which exemplifies this kind of sympathy. It occurred in the person of an aged nun, who was seized with senile gangrene in two of the fingers of each hand in consequence of chilblains. The patient reported that the sensibility of her fingers was so clearly allied with that of the stomach that when she suffered hunger she lost the power of using them as an organ of touch.

In the present day, perhaps, there is little danger of our overlooking the influence of the digestive organs in the production of remote and complicated diseases, but perhaps there is some danger of our regarding many of their derangements as primary which themselves are the consequence of some remote affection.

FINIS.

